HANDBOOK

OF

BRITISH NORTH BORNEO

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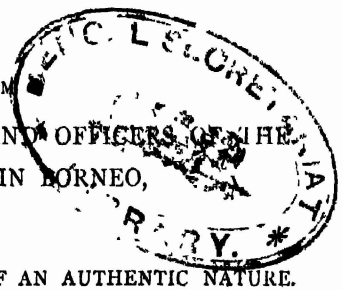

COMPILED FROM

REPORTS OF THE GOVERNOR AND OFFICERS OF THE RESIDENTIAL STAFF IN BORNEO,

AND

OTHER SOURCES OF INFORMATION OF AN AUTHENTIC NATURE.

WITH AN

APPENDIX OF DOCUMENTS, TRADE RETURNS, &c.,

SHOWING THE PROGRESS AND DEVELOPMENT OF THE COMPANY'S TERRITORY TO THE LATEST DATE.

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INTRODUCTION.

A 'HANDBOOK of British North Borneo' was prepared in 1886 for the *Colonial and Indian Exhibition*, held in that year in London, and chiefly intended as a guide to the North Borneo Court, and its contents on view in the building.

The information supplied to the visitors to the Exhibition, where the Handbook was on sale, is no longer available to the public, the edition having been exhausted. But, were it otherwise, it would not now afford all the information desired by the planters, traders, and investors in the numerous subsidiary companies which have since been formed for the development of the resources of the territory. To give this information in the most accessible form, and brought up to date, is the object of the present issue. Such of the contents of the previous Handbook as referred to matters of permanent interest, and not merely of ephemeral value in regard to the Exhibition, have been retained. But every section has been carefully re-edited, and all more recent data added from the most reliable sources of information, so as to give the latest intelligence available at the present time; and the map on the cover has in like manner been brought up to date, so as to include all the results of later explorations.

Details on the present state of the Company's territory, and its progress in the past eight years, form the bulk of the volume; and in the Appendix will be found information of a supplementary character, from official documents, returns and statistics, likely to be useful also for reference.

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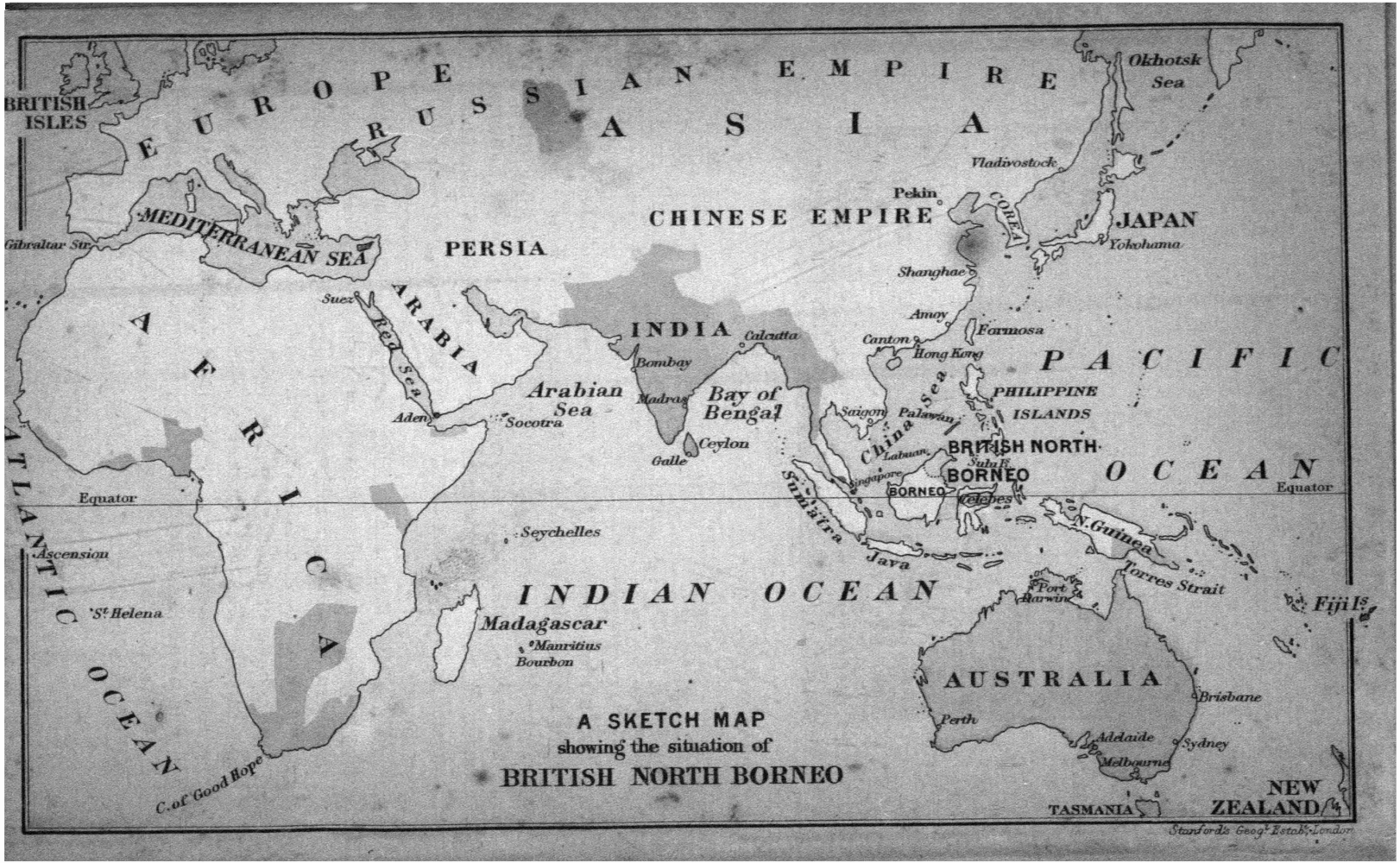
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Gibraltar Str.
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Red Sea
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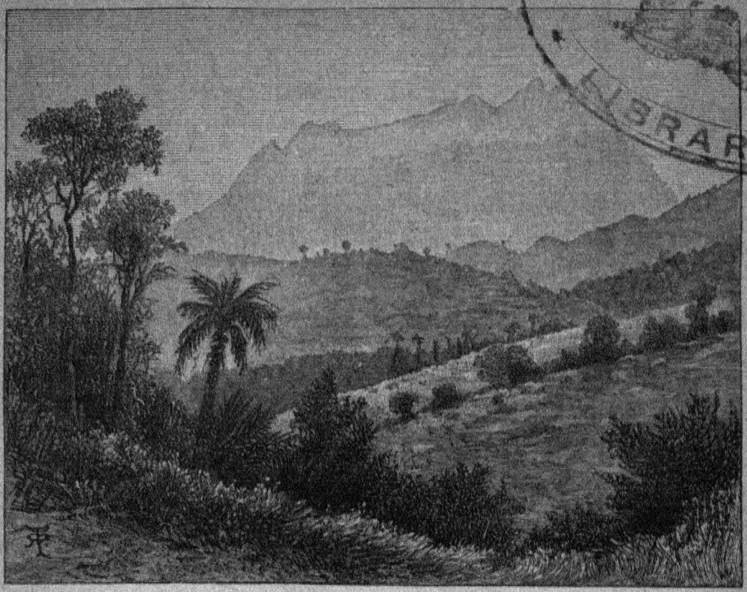
INDIA
Calcutta
Canton
Hong Kong
PACIFIC
Bombay
Arabian Sea
Madras
Bay of Bengal
China Sea
PHILIPPINE ISLANDS
Saigon
Palawan
Aden
Socotra
Ceylon
Galle
Labuan
BRITISH NORTH BORNEO
Sibuyan
Singapore
BORNEO
OCEAN
Equator
Equator
Celebes
Sumatra
N. Guinea
Seychelles
Java
Torres Strait
Ascension
INDIAN OCEAN
Port Darwin
Fiji Is.
St. Helena
Madagascar
Mauritius
Bourbon
AUSTRALIA
Brisbane
Perth
Adelaide
Sydney
Melbourne
C. of Good Hope
TASMANIA
NEW ZEALAND
A SKETCH MAP
showing the situation of
BRITISH NORTH BORNEO
Standford's Geog.l Estab.t London



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CHAPTER I.

MODERN HISTORY.

THE modern history of North Borneo may be said to commence with the signing of the Treaty between Great Britain and the Government of Brunei on the 27th of May, 1847, by which the cession to the British Government of the island of Labuan, made in 1845, was confirmed and that island was thereupon created a British Colony, and a Consul-General was appointed to Brunei.

It was hoped that the opening of a free port at Labuan under the English flag would ultimately develop the rich resources of Northern Borneo, and that an example of good government might spread its influence to the mainland.

Such, however, did not prove to be the case, and the Brunei Government, freed by the prestige of the British flag from the necessity of guarding against the incursions of the Sulu and Illanun pirates, sank lower and lower in administrative weakness and corruption. Its power soon became practically limited to the districts in the immediate vicinity of the capital, though

nominally the Sultan's authority extended as far as the western shores of Marudu Bay,—whence to the Sibuku river the Suzerainty of the Sulu Sultan was recognised in an equally nominal manner.

The United States was the only other Power which followed the example of England and entered into a treaty with the Sultan of Brunei, and appointed a Consul. In 1865 this Consul procured for himself from the Sultan a cession of territory, including most of the Provinces now embraced in the territory of British North Borneo, with rights of government. These rights and cessions he transferred to the American Trading Company of Borneo, which proceeded to form a settlement on the Kimanis river, some 60 miles from Labuan. The Company's capital proving quite inadequate for the purpose, the settlement was soon abandoned, and no further action was taken until 1875, when, it having been ascertained that the American cessions were still recognised as valid by the Native Government, Mr. (now Sir) Alfred Dent and Baron von Overbeck became specially interested in these cessions, and formed a private Association, in which, on the 29th of December, 1877, the Brunei Court vested in perpetuity the government of that portion of Northern Borneo which extends from the River Kimanis on the west to Sibuku on the east,—with the exception of a few small rivers, the private property of independent chiefs,—the Association undertaking to pay an annual tribute of $15,000, subsequently reduced to $7500 by mutual agreement.

As stated above, the Sultan of Sulu made claim to rights of sovereignty over much of the country which had been ceded by Brunei, and on the 22nd January, 1878, he transferred all his rights to the Association for an annual payment of $5000, and in the same year the Association, flying the flag of the house of Alfred Dent and Company, established stations at Sandakan, Tampassuk, and Papar; W. B. Pryer, W. Pretyman, and H. L. Leicester being the pioneer officers of the newly-established Government.

After visiting North Borneo in person, Mr. Alfred Dent returned to England, and considerable interest was soon evinced in the novel venture, notably by Sir Rutherford Alcock, K.C.B., Admiral the Hon. Sir Henry Keppel, G.C.B. (who years previously had materially assisted in consolidating the power of Rajah Brooke in Sarawak), Admiral R. C. Mayne, C.B., the

Hon. W. H. Read, M.L.C., of the Straits Settlements, and Mr. R. B. Martin, M.P. Early in 1881 the British North Borneo Provisional Association, Limited, was formed, taking over the cession with all rights and properties.

The Charter petitioned for was granted on the 1st November, 1881; and this obtained, the British North Borneo Company was formed in May, 1882; and thus armed and authorised, it took over all the rights, territorial and sovereign, conveyed in the original grants of the two Sultans, and proceeded as a corporate body, under the Royal Charter, to organise a service for the administration of the territory and the development of its resources.

For the territory thus ceded the Company undertakes to pay an annual rent of $12,500. At later periods the Company acquired the Putatan River (1st May, 1884), for the annual payment of $1000; the Padas District (November, 1884), including the important rivers of Padas and Kalias, the Tawaran and Bangawan rivers being included in the same deed of cession, under which an annual tribute of $3000 is payable; the Kawang River (21st February, 1885), and the Mantanani Islands (10th April, 1885), for which a lump sum of $1300 and $350 respectively were paid.

It may be remarked in passing, that the Putatan and Padas cessions must ultimately prove valuable acquisitions, notwithstanding the opposition of one hostile chief backed by alien influences which has been a cause of trouble to the Company, but is now happily arranged. There is reason to believe no further trouble will arise, and both the revenue of the Company and the security of those living under its jurisdiction and protection will be greatly improved.

The Spanish Government, at the outset, strongly objected to the cessions made by the Sultan of Sulu on the ground that the territories in question had long ago been ceded to the Spanish Crown, which claimed the suzerainty over the whole Sulu Archipelago and the States tributary thereto. This contention was finally waived on the signing of the Protocol by the Representatives of Great Britain, Spain, and Germany on the 7th March, 1885, Article III. of which provides that:

"The Spanish Government renounces, as far as regards the British Government, all claims of sovereignty over the territories of the Continent of

Borneo, which belong, or which have belonged in the past to the Sultan of Sulu, and which comprise the neighbouring islands of Balambangan, Banguey, and Malawalli, as well as all those comprised within a zone of three maritime leagues from the coast, and which form part of the territories administered by the Company styled the 'British North Borneo Company.'"

The Netherlands Government also raised objections to the establishment of the Company's Government in Borneo, on two grounds: Firstly, that the fact of the Company being British, constituted indirectly a breach of the provisions of the Treaty of London of 1824, to the effect that a mixed occupation by England and the Netherlands of any islands in the Indian Archipelago is to be avoided. Secondly, that the Sibuku River is included in the cession from Sulu, whereas the Dutch claim that their boundary extends to the north of that river, as far as Batu Tinagat on the Eastern coast.

The first objection has been withdrawn, but the second still remains under the consideration of the British and Netherlands Governments. In the meantime, the Company, on the 7th September, 1883, hoisted their flag on the south bank of the Sibuku, while the Dutch erected an obelisk at Batu Tinagat, 50 miles further north, and stationed a gunboat there. Whatever might be the strategic and commercial value of North Borneo ultimately, and which had so often attracted the attention of the East India Company, as evidenced by frequent efforts to effect a settlement in the adjacent islands, and in Borneo itself, the failure and final abandonment of any further attempts was not altogether calculated to inspire confidence.

It was assumed however that where natural advantages of soil, climate, and situation remain, such prosperity may return or be restored. The same products which constituted its riches can still be raised, the same ports and harbours remain, as at Acheen and Java in the Dutch Colonies, and at Manila in the Spanish Philippines. So also in Borneo, in far greater extent and importance, at Sandakan, Kudat, and Gaya, with their abundant river courses and affluents. But to restore population, industry, and trade, where they had once been, but totally disappeared in the lapse of centuries, can never be quite safely predicted or be either a speedy or very promising operation. Time, and labour, and capital, would be largely required before much progress could be reasonably expected.

Such, indeed, was very much the view taken by the press, both British and Indian. The early notices of the press in England were neither sanguine nor encouraging. The *Times* of the 24th April, 1878, noticing the Report of the Borneo-Sulu cessions, says:—

"The Batavian papers received by the Straits' mail give a great deal of space to the purchase by Baron von Overbeck, an Austrian acting for an English company, of territory on the north coast of Borneo. The land acquired is described as of great wealth, but the Dutch Batavian journals, the *Java Bode* and the *Economist*, suggest that the Netherlands Government have the right to compel the native chieftains, who sold the land to Baron von Overbeck, to acknowledge that the suzerainty of Holland extended over the territory parted with, which might thus be brought within the control of the Dutch-Indian Government."

This was the first note of opposition from the Dutch Government which still actually survives in a dispute about the south-eastern boundary of the Company, and the limits the Netherlands claim as their territory. But ten years later the tide of doubt and suspicion had so completely turned, that in a long article in the *Straits Times* of 18th December, 1888, the writer remarks that the country received

"An incalculable advantage in the chartering of the British North Borneo Company, which, it may be remembered, caused some excited discussion a few years ago. Whatever doubts or suspicions may have been felt at its birth the North Borneo Company is rapidly living down. It has justified its existence by the energy and breadth of mind with which it has conducted its administration. Grants of land have been given to cultivators on very liberal terms. Every encouragement has been afforded to the introduction of capital and labour on its lands, until at last it is reaping the fruit of its enterprise in a general rise in values."

Doubts and distrust of the policy or expediency of recognising a private company as the heirs or successors of the last of the Malay Sultans with territorial possessions and sovereign powers, were freely ventilated in Parliament as elsewhere, when it had been determined to grant to this Company a Royal Charter. But as the revival of the old Dutch and Spanish jealousy of any competitor to dispute their monopoly, either of trade, influence or territory in the Archipelago, was hotly pressed by the two Governments, as inviolate rights not to be disputed or set aside, and each claimed in Borneo rights of pre-emption in opposition to any cession on the part of the Sultans, some considerable delay occurred in consequence.

As to the pretension of the Spanish to any valid claim on North Borneo territory, these were definitively disposed of by H.M.'s Government after a diplomatic correspondence extending over three years, and furnishing materials for two Blue Books. In this correspondence may be found two very significant statements from the pen of Lord Granville, then Secretary of State for Foreign Affairs, to our Minister in Madrid, giving a summary of the British Government's appreciation of the contention raised.

In the one Lord Granville remarks that

"The Protocol of Madrid, which secured foreign trade from further molestation in the Sulu Archipelago, does not extend to the mainland of Borneo. The territorial limits of the sovereignty formerly claimed by Spain in the Sulu Archipelago are clearly defined in the treaty between Spain and Sulu in 1836, wherein they were declared to extend 'from the western point of Mindanao to Borneo and Palawan, with the exception of Sandakan and the other countries tributary to the Sultan on the continent of Borneo.'

"North Borneo lies in the fairway of an immense British maritime trade between China, Australia, India, and the United Kingdom. Its occupation by a foreign power would be a source of disquietude to this country, and for that reason clauses were inserted in the British treaties of 1847 and 1849 with the Sultans of Sulu and Brunei, under which they respectively engaged not to make any cession of territory to any other nation than Great Britain without the consent of Her Majesty's Government."

And it concludes,

"As regards the general features of the undertaking, it is to be observed that the territories granted to the Company have been for generations under the government of the Sultans of Sulu and Brunei, with whom Great Britain has had treaties of peace and commerce; and far from any disorders arising out of the occupation of those territories by British subjects, under the concessions of the Sultans, the advent of the Company has been welcomed everywhere by the inhabitants. The experience of three years shows that the peaceful and intelligent development of the great natural resources of the country is steadily increasing, and there is every reason to believe that a sound and liberal system of administration will be established by the Company, which will spread the benefits of civilisation among the native population, and open up new and important fields to British trade and enterprise, and to the commerce of all nations."

Whatever may be the true delimitation of the Dutch territory will have to be settled between Her Majesty's Government and that of the Netherlands. As to the commercial value and political importance, in an international point of view,

of this new possession in British hands there can be no doubt. Notwithstanding some adverse opinions elicited in a free discussion both in the Press and in Parliament, there was upon the whole a very general approval of the action of Her Majesty's Government in the grant of a Charter on the grounds stated by Lord Granville in the House of Lords, and by the Prime Minister, Mr. Gladstone himself, in the House of Commons.

The debate in both Houses, which terminated in the House of Commons by a large majority approving of the policy of granting the Charter, and without a division in the House of Lords in the same sense, was very important in other respects. The Secretary of State for Foreign Affairs, Earl Granville, and Mr. Gladstone, premier of a Liberal Ministry, laid down in the clearest terms the principles which should influence a British Government in granting a Charter to colonising and trading companies, and at the same time the limitations and restrictions which these grants should be held to create. On these lines the contention of the Opposition members was met, with the result we have seen. A result as indicating a deliberate Imperial policy of such great importance in a national sense, that it is desirable the chief grounds should be on permanent record, and in a more accessible place than in the pages of Hansard. The following extracts may serve this purpose.

Lord Granville began his speech in answer to Lord Lamington leading the opposition to the Charter, by a short retrospective view of the historical and political events respecting Borneo, bearing upon the present policy, and said :—

"Borneo—one of the largest, if not the largest island in the world, if Australia be properly described as a Continent—Borneo has vast natural resources, and abounds in mineral and vegetable riches. It has long been a subject of jealous observation between this country, the Dutch, and the Spaniards, and has been colonised partially by each of these powers. During the last sixty years diplomatic communications have been going on with regard to it—during that time the Dutch have made immense acquisitions, not only in the islands south of Singapore, but also in the south of Borneo. The claims of Spain as lately developed would, if they had been verified, have placed the whole of the Eastern Archipelago, extending 2000 miles in one direction and 2500 in another, with the exception of the land lying on the track of our immense trade with China and Australia, the Straits Settlements, Labuan and Sarawak, entirely in the power of these two nations, with

both of whom we desire to be on the most friendly terms; but whose commercial arrangements are far from being as liberal as our own

"In 1877 a Proctocol was signed by which England and Germany agreed with Spain as to a *modus vivendi*, securing the freedom of navigation and commerce to this country in the Sulu Archipelago—subsequently, however, England and Germany thought they had reason to complain of acts which appeared to them entirely in disaccord with its provisions, and which showed that the Spaniards intended to occupy portions of North Borneo. The Dutch, on the other hand, made new claims, being alarmed by concessions which had been made by the Sultans of Borneo and of Sulu to Mr. Dent, who on his part applied in 1878 to Her Majesty's Government for a Charter of Incorporation"

Taking these conditions into consideration, it remained for Her Majesty's Government to decide when the application for a Charter was applied for, what course it was best to adopt. He proceeded:—

"There seemed to be three courses open to us—either ourselves to annex this vast territory; to leave it to Mr. Dent and the important Company which he represented to make the best of the concessions granted to them—in other words we might have left matters to take their own course—or to leave the whole country to its almost inevitable absorption by foreign nations. There were grave objections to the first and third courses that did not appear to apply to the second."

His Lordship then continued to point out what the Charter contained—what powers it conferred, and in what it was restrictive, and the similarity of its terms to those obtained by other Companies with this signal advantage to the State: that a strong control was retained by the Government for matters affecting foreign Governments, and the treatment of the natives—a power which would not have existed if the Company had incorporated themselves, as they might, under the Companies Act:—

"The Charter contained no powers beyond those which Mr. Dent and his partners might have procured by simply putting themselves under the Companies Act. Your Lordships know that in some of our Companies—New Zealand for example—there are large Companies which possess extensive territories, and the Charter obtained by Mr. Dent does not go beyond those obtained by these Companies. The Royal Charter gives no additional powers to the Company. Is is of a restrictive character. We obtain a negative control over the Company with regard to their general treatment of the natives and to their dealings with foreign powers. We incur no obligation to give them military assistance except that which we give to all Englishmen engaged in trade in uncivilised countries. As to military protection expected or hoped for by the Company, they have distinctly stated

that the Charter would entail no responsibility upon Her Majesty's Government for the protection of the country beyond that which is inseparable from the nationality of those engaged in developing its resources. In the case of the Hudson Bay and the New Zealand Companies the crown had dominion over the respective countries. That fact alone entailed the duty of providing for their military defence. In the present case there is no dominion over North Borneo from which such an obligation can flow. The grant of the Charter gives moral advantages to the Company, but legally it does nothing for it except to turn it into a body corporate with perpetual succession. On the other hand it imposes considerable restrictions upon the association. It establishes a control over them which would not have existed if they had incorporated themselves under the Companies Act. We decided that the power should be confined to a power of objection and dissent in matters affecting foreign powers and the treatment of the natives. But the negative power is strong and any disregard of the objections of the Government entails the possible cancelment of the Charter.

Borneo is a most valuable and important part of the world—and if the resources of the country are developed under the honest and intelligent supervision of a certain number of Europeans, I believe that great results may be achieved, while no additional burden, either military or financial, will be thrown upon this country."

Lord Carnarvon, from the Opposition benches, spoke in support of the Charter, and said :—

"The annexations which Holland had made in the last thirty or forty years were simply enormous. They stretched 2000 miles in one direction and still further in another. It was impossible not to remember that Holland had not shown, and indeed, did not possess the power to make use of the territory she had acquired.

"It would have been a source of great inconvenience and risk to ourselves if any other country than England had been lodged in the north-eastern part of Borneo, and there could be no doubt that if we had not established our position there, some other European power would. It was very important that the country should recognise what an enormous stake it had in the trade that passed through these waters. The trade from the west between England and China was simply vast, but there was also the trade growing up between China and Australia which was very considerable. There could be no doubt that their position in the north-east of Borneo, whether looked at as a matter of peace or war, was of very great consequence—and he concluded by saying, they would have done a great wrong if they had allowed this territory to pass into the hands of any foreign state. He believed that the possession would be a valuable one—and as such he welcomed its acquisition."

In the House of Commons, Mr. Gladstone said, in reply to Mr. Gorst and others on the Opposition side, objecting to the grant of the Charter :—

"The Government had no power to say to the Company 'You shall not occupy the position in which you are placed by your purchase.' The

Government had to decide whether it was better that the Company should exist exercising its powers irresponsible to this country, unrestrained and uncontrolled—or should have imposed upon them certain obligations which will in every instance act in restraint of that power. It is a simple question involving broad principles—namely, whether a Company which is legally in existence, could or could not be restrained in the exercise of certain powers, by a Charter giving the state a control over them."

And Mr. Gladstone, in answer to the Opposition, summed up; as to the argument urged against annexation, he remarked that—

"It does nothing to check that tendency, that perhaps irresistible tendency of British enterprise to carry your commerce, and to carry the range and area of your settlement, beyond the limits of your sovereignty in those countries where civilization does not exist.

"Wherever your subjects go in pursuit of objects not unlawful you are under a moral obligation towards them that you cannot possibly forget or ignore; and their object being lawful, you afford them such protection as your power enables you to give. In fact I will make you this admission, that wherever your subjects have settled themselves, and have become virtual masters of a territory, there may lie the seed of future annexation. But that is a danger you cannot escape from."

After this the House divided with a majority of 63 in a House of 187 members.

It may be assumed that Her Majesty's Government saw insuperable objection either to annex the large territory, to allow it to lapse to foreign Powers, or to adopt the alternative of allowing Mr. Dent or his Company to exercise the powers that actually existed under the Sultan's grants, irresponsible to this country, unrestrained, and uncontrolled. And they adopted the only course left, which was by a Charter to obtain power giving the State control over those who held the territory.

As regards the fitness of chartered Companies for such special colonising work, and the value of the services rendered by them in past and present times, a very few examples may suffice.

What the East India Company and the Hudson's Bay Company did in past centuries for England is too well known to need demonstration; and it was these same mercantile associations and companies which made of the smallest of European States in the 16th century the greatest of maritime and commercial Powers. Where mercantile associations and companies have succeeded in forming important Colonies and permanent settlements, Governments have signally failed. In a valuable article

contributed by Mr. Thompson recently to the 'Fortnightly Review,' entitled, "Downing Street *versus* Chartered Companies in Africa," writing with all his personal knowledge and experience of what has taken place in Western and Eastern Africa in recent times, he shows conclusively that where Governments have failed, two chartered Companies, the Royal Niger Company in the West of Africa, and the Imperial Eastern African Company on the Eastern Coast, are making greater and successful progress. The comparison he institutes between what has been achieved by the ordinary Government machinery in the interests of Great Britain, and what by chartered Companies, is as conclusive as it is unanswerable. He restricts himself to ground with which he is familiar—West and East Africa—where he has seen the two methods at work side by side. He shows that at one time we had no rivals in Colonial enterprise; and now, by the active enterprise of the French and Germans, we are practically confined in the west to the coast region, "to strive and fester among its deadly swamps." The French have grasped in recent years, "within their exclusive sphere of political and commercial influence, the whole of the upper basin of the Niger, shutting in Sierra Leone from all advance into the interior, and cutting off all hope of its ever being anything but a petty settlement;" and he states, that "but for the National African Company, the middle zone of the Niger at this day would have been lost to us, as has the upper basin already, and practically have become German."

For the last twenty or thirty years, he further contends, we have developed under the Government "the policy of treating West Africa with indifference and contempt, and, as an incubus, the sooner got rid of, or at least the smaller kept, the better." And he believes "this policy of crippling all natural expansion is no doubt largely traceable to that new school of so-called Liberal politicians who have so little read their national history, and so utterly failed to grasp the secret of Britain's greatness, that they advocate the stoppage of all foreign enterprise, and our complete withdrawal into our own islands." And lastly he asks, "Of what use would our geographical position have been to us, if it had not been made use of for action abroad, and without such action where would our greatness have been?" If asked what would have been his remedy for all this mismanagement

in the past, and what the cure for the future, with no uncertain voice he answers, that a chartered Company would have prevented the one; but for the other he wants a total reorganisation of our administrative machinery and policy in Downing Street.

He points out that in tropical Africa (as in other tropical countries) the answer to objections urged against the iniquity of granting Charters to private individuals or companies as being little more or less than monopolies, is the fact "that enormous difficulties from the climate and the natives have to be faced, and vast sums of money spent in treaty-making, road-making, administration, exploration, &c.—work which would not be done except by a powerful Company, which must have some guarantee that it will not be deprived of the fruits of its enterprise."

Mr. Thompson, referring to the progress made already by the Imperial British East African Company, whose first yearly Report tells a tale of work and progress of which they have a right to be proud—in a country which it is only five years since he explored for the first time the greater part of their territory; "and yet we now hear of piers, roads, and telegraph lines as in process of construction, and of railway lines projected into the heart of the country, on the faith of a purely prospective trade and profits."

All the more recent colonising and commercial, enterprises in uncivilized or semi-barbarous, countries have been encouraged and sanctioned by the grant of Charters to Companies. The latest instance of this policy on the part of Her Majesty's Government, is the grant of a Charter to the new South African Company, which includes among its founders men of wealth, distinction, and practical experience. A debate was raised in opposition in one of the last sittings of the House of Commons before the close of the Session, and opposed in the same spirit and on similar grounds to those adopted when the British North Borneo Company's Charter was granted. The object of this Company is to carry out on the territory between Cape Colony and the Zambesi in the South the same work which the East African Company is doing in another part of Africa, and was carried by a very satisfactory majority. The Government in this case, as in the Charter of the British North Borneo Company, reserving to itself the fullest control over the proceedings of the Company, which will thus carry on its work with a full sense of responsibility to the Imperial Government.

Thus, while a large and valuable territory will be opened to British commerce and enterprise, and native chiefs will be protected from the traps laid for them by unscrupulous speculators, the Government will be called upon for no expenditure or responsibility beyond a general exercise of a protecting influence against aggressive action from without. Such a policy well befits England, which Prince Bismark, in a recent speech, said was the greatest Colonial Power in the world; and, as a consequence, British trade, unburdened with an Imperial administration, enjoys the complete liberty of action that alone renders an elastic commercial policy possible and profitable.

The area acquired is some thirty thousand square miles in extent, and forms a kind of irregular triangle, more than two-thirds of which are bounded by the sea. The coast extends over 600 miles, and all islands within three leagues are included in the cession. This territory occupies an important position, both strategic and commercial, in the Eastern Archipelago, and is further gifted with many fine harbours and navigable rivers. And the object of the Company is the development of the great natural resources of this country, by the introduction of capital and labour, and all the benefits of a civilised Government.

North Borneo, moreover, has this, among other exceptional and special advantages, that while the native population is small and easily governed, there is a command of Asiatic labour fitted to the climate, in the overflowing population of China, within five days' steam. The Chinese are a race which has already fertilised, by industry and persevering labour, nearly all the islands and colonies east of the Cape, and still affords an inexhaustible reserve of labour wherever in these seas the workers can count upon fair wages and security for the fruits of their labour. This is an inestimable advantage for Borneo, where, under a tropical sun, it is impossible for Europeans to undertake the labours of the field; and who are not therefore, as are the planters in the West Indies, reduced to great straits from the difficulty of securing continuous labour at reasonable wages. Nor is it a less important and exceptional advantage for North Borneo that it is out of the region of typhoons, and the earthquakes and volcanoes which periodically work such havoc and ruin in the Spanish settlements of the Philippines

in the north, and the Dutch possessions in Java and Sumatra further south.

The progress made in the short period of ten years, since the first cession was made, it may be enough to state, is full of encouragement and promise. It may seem but a small beginning to create in that brief space—eight years only of actual occupation—a revenue of some £25,000 per annum, and a trade which has been steadily increasing year by year and in all its feeders.* And if the whole Trade of eight years' growth be considered small compared with the value and extent of British trade in the China waters, it should be remembered how small and unpromising, as well as insignificant, were the two settlements of Hong Kong and Singapore in their first years, though now forming the great central depôts of a trade which takes the whole world in its circuit. Not fifty years ago Hong Kong was a barren island, a bare rock, with only a few fishermen for its inhabitants, and granite boulders its only produce. At the present day there is a large city with a population of more than 200,000 Chinese domiciled in the island, while ships crowd its capacious harbour under every flag which flies in the two hemispheres. A similar history has marked the development of Singapore and the Straits Settlements. These have only risen to their present state of wealth and prosperity within the last half century, and Singapore still more recently. In 1887 the value of the united exports and imports of Singapore amounted to $263,664,131, due mainly to three great factors—geographical situation, an equitable Government, and a plentiful supply of cheap labour in the Chinese colonists. With similar, if not equal advantages, there is reasonable ground to hope that a like future may be in store for the Company's territory. Nor does such a result concern the Colony and the Company alone. Shut out, as English goods are, from all the Continental States by protective duties, Europe is daily becoming of less value to us as an outlet for our manufactures. Not only are our goods excluded by hostile

* Compared with the progress made in some of the protected States in the Straits —in Selangor, Perak, &c., in the same space of time, North Borneo may seem at a disadvantage, but the rapid prosperity of these is due to the working of rich mines of tin—and if compared with Sarawak, even with the advantage of antimony ore in large quantities, the revenue at the end of 17 years was reported by Sir James Brooke as only £10,000. A notable difference in favour of North Borneo.

tariffs, but we are further debarred from the sale of our goods in European markets by the growing progress of the industries of those countries, protected as they are by bounties, the longer hours of labour, and the lower wages prevailing there. Hence, in view of the present economic condition, and the future prospects of our country, the chief hope of an improved state of trade lies in the opening and development of new markets in less civilised countries and in semi-barbarous regions. The markets of the East are still open where Russian tariffs do not exist, and no prohibitive or hostile duties are likely to be permitted so long as they are not under any alien or foreign power. From its central position, moreover, it possesses advantages both political and strategical, which no other island in the Eastern Archipelago can offer, and, under existing circumstances, its value in a national no less than a commercial point of view cannot well be over-estimated.

In support of this view, showing how generally it must be participated in by a numerous body of merchants, planters, and others best situated to form an accurate estimate, it may be mentioned, that within the past eighteen months, some twenty Companies have been formed, obtaining from the British North Borneo Government concessions in the aggregate amounting to some 600,000 acres, and for the development of which a million and a-half of capital has been subscribed by their shareholders —chiefly, but not exclusively, for the culture of tobacco, although this for the present is likely to be the chief object. The soil and climate in Borneo has been proved to be eminently favourable, and capable of producing a leaf fully equal to the best Deli tobacco grown in the Dutch Colony, which has hitherto had the complete command of the markets in Europe, to the great enrichment of the planters, and the revenues of the Dutch Government.

The contentions so persistently raised by the Dutch and Spanish Governments against a British occupation of any part of Borneo, taken in connection with the recent aspirations of all the chief continental Powers for colonial extension, and the numerous annexations made in furtherance of this object in Africa and the Pacific, give an increased value and importance to the Company's cessions. Even in New Guinea, the southern fringe of the Malayan Archipelago, the disputed and rival claims

there, are facts which give increased importance to the acquisition of North Borneo by a British Company, secured as it is by a Royal Charter and by the British flag from all aggression or encroachment by any alien or foreign State. Neither the Charter, nor the Protectorate, only following some years later, has been granted too soon, as must be evident. This prevision of the necessity for prompt occupation of the cession was not wanting in those more immediately interested as was shown. At the first public meeting, held in March 1878, at the Westminster Palace Hotel, to consider the desirability of a Company being formed for that object, Sir Rutherford Alcock, who had been requested to take the chair, plainly indicated the danger—and the duty of forestalling it by immediate action,—in his introductory remarks, when he said :—

"I confess, in taking a larger range than a merely commercial view admits, that it seems to be a matter of very great national importance that this northern part of Borneo should not pass into the hands of any other country, considering the naval supremacy we have in those seas, and that it is on the fairway to so many of our possessions. Remembering, too, that for some 1400 miles from Singapore to Hong Kong we have not a single port where any fleet of merchant ships could find refuge in case of warfare; and that there might be the greatest possible injury, if not destruction, to our commerce and to our mercantile navy, from any enemy possessing such a port as there is in Gaya, on the north-west of Borneo, within the territory now conceded. It is a magnificent port, and in these seas there is nothing until you come to Labuan, which, it is very well known, possesses only a coaling station, and affords anchorage for but a few ships. Certain it is, that if we were at war to-morrow, and an enemy had possession of the country and port now under consideration, the first thing we should have to do would be to drive them out of it. It is wiser, in my opinion, to take it when it is offered, and, extending the protection of our flag over it, to occupy the ground, than to let others take and fortify it. So that, whether you look at it commercially or politically, I consider this acquisition one of the greatest importance."

The time has now arrived when it may safely be trusted that the encouraging anticipation expressed by Earl Granville in the concluding passage of his exhaustive despatch to Mr. Morier, our Minister at Madrid, dated January 7, 1882, will not be found too sanguine. It was written eight years ago. And what progress has been since made in the "peaceful and intelligent development of the great natural resources of the country,"—and in the establishment "of a sound and liberal system of administration," spreading the benefits among the native population, the

opening up of new and important fields to British trade and the commerce of all nations, evidence will be found in the following leaves of the Handbook and in the Appendix. But the Company may say for itself that the ends to be desired, as set forth by Her Majesty's Secretary of State for Foreign Affairs, were among the principal objects proposed by the Court of Directors, and they have been steadily kept in view during their administration. In this short period their efforts to introduce civil government in harmony with British laws, and to develop all the latent resources of a country so richly endowed by nature, have produced results sufficiently apparent and assured to attract a large investment of capital, subscribed to numerous Companies, many of them foreign. A token of greater confidence as coming from foreigners than from British capitalists, though these have not been wanting.

In forming an estimate of what has been accomplished, it is to be borne in mind, that unlike the East India Company which began simply as traders, and with a country possessing the accumulated wealth of ages of industry, and a civilization dating from ancient times—the British North Borneo Company, on the contrary, had to take possession of a large territory covered for the most part with virgin forests. As Mr. Crocker points out in his able Report:* "The inhabitants were a barbarous few scattered about in independent tribes, and where it was necessary to inspire confidence and attract capital before any good results could follow."

Nor is it unimportant to remember that this Company in its efforts to attract labour and capital had to compete with adjacent colonies where free trade prevailed, as in the Straits and Hong Kong. And even for the disposal of land, Sarawak still closer, was in the market and offering it free. The British North Borneo Company during the first years had to do the same, and much of the land for tobacco culture, which is now eagerly sought after by planters from Deli in Sumatra at $3 per acre, had only a "prairie value" in the first year.

This end could not have been obtained without much expenditure, and more will be required as the number of plantations increases, and scattered over a very large area.

* Appendix P. 'Report on North Borneo.'

As regards the present and its prospects, the progress made in the time will bear comparison in revenue and trade with any other colony, where valuable mineral deposits have not produced a sudden prosperity due to that source exclusively; or even with its neighbour Sarawak, where there is abundance of antimony ore and other mineral products. Without these advantages hitherto, a steadily increasing revenue, amounting at the end of 1888 to £25,000, exclusive of land sales, amounting to £40,000, and a trade return in exports and imports, also increasing year by year, are very satisfactory features.

The Company has, however, much to do yet for the development of the revenue of the country. Besides road-making, other measures for facilitating communication by sea and land, with their widely scattered ports and settlements, in the midst of a partially explored and sparsely populated country. The economic geology of the country has scarcely been investigated at all yet, beyond tracing the existence of coal and gold over a large area. Oil-bearing sandstone has been found, and petroleum wells have yet to be explored where traces have been found. Resources of infinite value may yet be found beneath the soil, while the tobacco culture above, promises not only quick returns and wealth to planters, but an increasing revenue to the Company as soon as the export duty chargeable in 1892 is receivable.

Besides the roads immediately required to facilitate communication, stations and a police establishment have to be largely increased in number and European staff also, which may require an expenditure in excess of the present revenue. But in all colonization this is for a time a necessity of universal experience. Fiji, one of the latest of the Crown Colonies, is only one instance out of the number, where the Governor, Sir Arthur Gordon, reported in 1887, "That the establishments are still large compared with the present resources of the colony; but a population more numerous than Trinidad, composed of discordant races, cannot be governed without considerable expenditure or a very small establishment. The early stages of the existence of a colony and its establishments are always disproportionate to the revenue." And accordingly we find that in 1887, after rigid economy, the colony, with an area of 7400 square miles, and a population of only 128,000, expended

£73,000, or $430,000, while in North Borneo with an area of 31,000 square miles, and a population estimated at 150,000, the Company's expenditure in 1887 was £29,000, or $176,000, about one-half of that required to conduct the affairs of the colony under Her Majesty's Government.

Coming into possession of a long neglected estate covered in great part with jungle and almost impenetrable forests—depopulated and with no roads, industry or trade to build upon, and, of course, no revenue, and no security for life or property, the first essential business of the Company was to create all these necessary conditions of possible tenancy and occupation. Nor were these things to be improvised, or in any way attained without much outlay of capital and great expenditure of both time and labour. It has sometimes been suggested that a more profitable course would have been for the Company to employ its capital in trading and the cultivation of the soil—say in tobacco plantations yielding such enormous profits in the neighbouring colony of Deli in Sumatra.

Another consideration could not fail to confirm the Company in its policy as one of government and administration, leaving to others from outside who might see a field for industry in their territory, without any antagonistic interest from the territorial government of injurious competition. And this would probably have prevailed, even without another argument of a financial character.

The Company had a very considerable capital at its disposal, but not more than might be necessary, as the event has proved, to carry out to a successful issue their first business, which was to render the territory fit for occupation, on terms, and under conditions, to invite the confidence of traders, merchants, and capitalists.

There only remains to be added that, on the 19th of May last, the territory of the British North Borneo Company was constituted under a British Protectorate, with the title of the *State of North Borneo*, and placed in the same independent position as regards its internal administration as Brunei and Sarawak, when in sequence they also claimed and obtained a British Protectorate. And thus the difficult problem, which so long vexed the heart of Sir James Brooke, how to secure internal independence with British protection has been satisfactorily solved. A similar

Protectorate of the British Government extended to the chartered Companies in East and West Africa, as well as to Brunei and Sarawak, on the application of their respective Rulers, has placed the whole of these States in a recognised and well assured position internationally, while leaving them all needful independence in internal administration and commercial activity. And this is the course which all the chief powers in Europe have now plainly adopted wherever it has been deemed desirable to favour the colonization of tropic or semi-barbarous regions.

CHAPTER II.

GEOGRAPHY.

A. *Extent, Boundaries, Etc.*

THE territory of British North Borneo includes the whole northern portion of the great island of Borneo, from the Sipitong stream on the west to the Sibuku river on the east, and is coterminous with the northern boundary of the Sultanate of Brunei, on the west coast, and approaches that of the Netherlands possessions on the east. It is, roughly speaking, of pyramidal form, the apex being towards the north, the China Sea washing its western, and the Sulu and Celebes Seas its eastern coasts. The following positions are approximate:—

The Sibuku boundary is in about lat. 4° 05′ N., the Sipitong boundary in lat. 5° 06′ N., while the territory extends to the north as far as lat. 7° 25′ N. Gura Peak, in lat. N. 3° 52′, is taken to be its extreme south limit inland. The most westerly point is that of Kalias, long. 115° 20′ E., and the most easterly, Hog Point, 119° 16′ E. Its area, exclusive of islands, is computed at 30,403·87, and with the islands 31,000 square miles.

The government of a few small rivers, owned by independent chiefs on the west coast, aggregating some 100 square miles in extent, has not yet been acquired by the Company, viz.: the Kwala Lama, Membakut, Kinarut, Inanam, and the Menkabong. For the sake of comparison it may be noted that the area of Ceylon is 24,702 square miles, that of Johore, 20,000, Perak, 8000, and Selangore, 5000 square miles.

The coastline of the mainland measures about 1000 land miles.

From a geographical point of view the territory is favourably situated as regards commercial routes, being almost midway between Hong Kong and Singapore, while the course recom-

mended on the Admiralty charts to vessels trading to China and Japan in the north-east monsoon, through the Palawan Passage, brings them within ninety miles of the harbours of the west coast. On the other side steamers trading between China and Australia pass within half a day's steaming of the magnificent harbour of Sandakan, the present headquarters of the Company.

The following table gives the distances between Sandakan and the principal commercial ports in the Far East:—

Sandakan to	Singapore	1,000	miles.
„	Hong Kong	1,200	„
„	Labuan	300	„
„	Manila	600	„
„	Sulu	181	„
„	Bulungan	300	„
„	Macassar (Celebes)	750	„
„	Menado (Celebes)	350	„
„	Port Darwin, Australia	1,500	„

Mempakol, the most westerly station in the territory, is only about 700 miles distant from Singapore.

B. *Harbours and Roadsteads.*

As a whole, the island of Borneo, as pointed out by Wallace, is very little indented with bays: "The few it possesses being towards the north-eastern extremity, where the coast is somewhat higher and more abrupt." On the other hand, owing to the gradual tapering to its apex of the northern portion of the island, the only good navigable rivers are to be found towards the south.

A detailed description of the coastline of the territory is not required here, as those interested in such information can find full details in 'The China Sea Directory,' vol. ii.

It will suffice to enumerate the principal bays and anchorages, commencing with the west coast. Off Nosong Point, Pulo Tega affords an anchorage on one side or the other in either monsoon for large vessels. Half way between this and Gaya is the anchorage of Dinawan, with no less depth than 6½ fathoms. Gaya Island affords protection from the north-east monsoon in two deep bays on its southern side, and together with the island of Sapangar and Gaya Head forms, with the mainland, the fine

bay known as Gaya and Sapangar Bays The united length of the two bays is about 7 miles, with a depth of water ranging from 8 to 13 fathoms. The width is about 4 miles, narrowing to 1½ at the north end of Sapangar Bay. The main entrance is between Gaya and Sapangar Islands, with a width of 4500 yards across, and a depth of about 17 fathoms. It has been remarked that "for purposes of commerce these two bays are large enough to shelter every vessel trading to the east during both monsoons." Unfortunately, the shores all around are, as a rule, abruptly hilly, rendering it difficult to select good town sites. The Company has established a station on the east end of Gaya Island, where vessels drawing 20 feet can lie alongside the Government wharf well sheltered. The natives from the mainland bring in supplies of fowls and ducks, and it is a transhipping port for cattle from the opposite coast to Sandakan and Sulu. Water is obtained from springs and wells.

In 1866 the late Mr. S. E. Dalrymple examined a harbour on the mainland near Tanjong Aru and the Putatan river, to the south-east of Gaya, which has since been officially surveyed; Mr. Dalrymple reported three entrances with a depth of 6 fathoms, and an average depth in the harbour of 5 fathoms. A wharf of 225 yards would lead into 3½ fathoms. He concludes his report by saying, "Finally the new harbour enjoys an unlimited amount of flat land to build on, stretching from the very water's edge, and a closely contiguous population of some 500 Bajows and 6000 to 7000 industrious Dusun agriculturists. It is my opinion that, next to Sandakan, this will prove to be the best harbour in North Borneo, as regards size, depth, accessibility, good holding ground," &c. Mr. Dalrymple reported a good supply of fresh water.

Proceeding north from Gaya, Ambong Cape is reached between which and Soundal Point are three bays—Ambong Bay, depth of water 5 to 8 fathoms; Tangah Bay, 8 to 9 fathoms, and Soundal Bay, 4½ to 11 fathoms. In neither of these has any settlement been formed by the Company, there being no population to speak of; consequently provisions cannot be depended upon, and the water supply has not been examined, though two sources are reported in the first. All three bays are open to west and north-west winds. Ambong Bay affords shelter in both monsoons, and the other two in the north-east moonsoon.

The Admiralty Chart No. 1778 gives a plan of the three bays. About 3 miles to the north of Ambong Bay is that of Usakan, an inlet some 2 miles long, affording good anchorage in the north-east monsoon, but exposed to the south-west. Depth of water 6 to 10 fathoms. Usakan Island forms with the mainland the small bay of Abai, into which debouches the river of that name. The depth of water is marked in the Admiralty Chart as $1\frac{1}{2}$ to 2 fathoms. There is communication for boats between Usakan and Abai Bays. In the latter a station was at one time established by the Company, but was withdrawn as the amount of trade attracted did not warrant the expenditure involved. Water is obtained from wells at Abai of fairly good quality. Cattle are occasionally obtainable, but supplies cannot be relied on.

The Mantanani Islands, 12 miles from the mainland, afford anchorage in either monsoon. They are uninhabited, except during the season when the edible birds' nests are collected from the small caves which exist.

The little bay of Agal, with a depth of $3\frac{1}{2}$ to 4 fathoms, gives a secure anchorage for a vessel in the north-east monsoon. This is the last of the anchorages worth mentioning on the west coast.

Turning round Sampanmangio, the most northerly point of the mainland of Borneo, we enter the great Bay of Marudu. This bay runs nearly due north and south about 28 miles, and is some 17 miles broad at its entrance, decreasing to about 9 at its southern end. Its range of depth may be stated at from 3 to 20 fathoms. On its western shore, 11 miles from the entrance, is the excellent harbour of Kudat, at which a station has been formed by the Government. A plan of the harbour is given on Admiralty Chart No. 946. At the entrance the depth of water is 8 to 9 fathoms, and a distance of $1\frac{1}{4}$ miles inwards reaches the 5 fathoms line, the 3 fathoms line being about half a mile further to the west. A jetty has been built into $2\frac{1}{2}$ fathoms of water. A small stock of coal is kept up for the use of calling steamers. The water supply is not good. Cattle and vegetables are, as a rule, obtainable. Lights are exhibited on the jetty and on the flagstaff, the latter being 123 feet above sea level. Kudat Harbour was first reported in August, 1881, by Commander Johnstone, H.M.S. *Egeria*.

On the eastern shore of the bay there is said to be a well-sheltered deep-water harbour at Selimpadan, south of the Bengkoka River, with excellent supplies of fresh water and a convenient site for a town, with land suitable for agricultural purposes in the vicinity. This harbour has not yet been surveyed.

Some twelve miles north of the entrance to Marudu Bay are the two large islands of Balambangan and Banguey, the former

VIEW IN KUDAT HARBOUR.

40 square miles and the latter 167 square miles in extent. In both are harbours.

On the east side of Balambangan, which is uninhabited, are two inlets known as North and South Harbours, both affording good drinking water, but the purest being found in the southern one. Full directions for entering both harbours, which have a depth from 3 to 9 fathoms, but not free from dangers, will be found in the 'China Sea Directory,' vol. ii.

The harbour on the south side of Banguey Island was not reported until 1884. The following is the report of Mr. John Robertson, the Company's Assistant Surveyor, under date 12th January, 1886:—

"Harbour. On reference to the chart the position of the entrances, beacons, and reefs will be seen. The part surveyed is 4½ miles long by an average of three-quarters of a mile in width. There are three entrances, of which the middle one is the principal. Its width at the narrowest point is 575 feet. The depth varies from 5 to 12 fathoms. The part of the harbour immediately in front of proposed site of town has a depth of water varying from 4 to 10 fathoms. The only disadvantages it has got are its comparative smallness and the presence of a dangerous reef near to the wharf. The entrance at the west end of the harbour has a width of 930 feet and a depth of 8 to 9 fathoms. This entrance can never be much used, as there is a reef in the passage which reduces the width to 400 feet. The entrance at the easterly end of the harbour has a width of 1040 feet and a depth of 7 to 8 fathoms. The passage from here to the proposed site of town is good, and has an average depth of 6 fathoms in the navigable parts. The harbour is well sheltered from both monsoons."

The reefs are all beaconed off.

The harbour is formed by three islands on the one side and Banguey on the other. Vessels using the Mallawalli Channel pass close to the harbour. An experimental settlement has been formed near the west end, to which the name of Mitford has been given. The water supply is reported good. A German company has a tobacco estate on the Limbuak river, west coast, and the interior is sparsely inhabited by peaceable Dusuns. Fleets of Bajow prahus are to be seen on the coasts, shifting their anchorage as the seasons demand.

In the Mallawalli Passage are numerous islands or islets, of which Mallawalli (15 square miles) is the largest. Off most of them anchorage can be found affording shelter from the prevailing winds.

Leaving Marudu Bay and steering to the south-east, the large bays known as Paitan and Marchesa are passed, neither of which have been surveyed. Next comes Labuk Bay, surveyed in 1883 by Commander the Hon. F. C. P. Vereker. He reports the bay to be 19 miles wide and 16 miles in depth to the Labuk River in its south-west corner. The north-west part of the bay is shallow and unnavigable. The south-western portion is deeper, affording a passage, in one part giving only 9 feet at low water, to the Labuk River.

Twenty miles to the south-west of Labuk Bay is the magnificent harbour of Sandakan. At its entrance, between Balhalla and Trusan Duyong, it is 1¼ miles wide, from which place it gradually increases to its greatest width, viz. 5 miles. Its length is 15 miles, and it lies in a N.E. and S.W. direction.

The only part properly examined by the Admiralty is that north of Pulo Buy and the Bay of Sapa Gaya, situated on the east shore, but large sailing vessels proceed as far as German Town, on the island of Timbang, 11 miles up the bay, to load timber. Sandakan, the capital of the territory, is built on the north shore, three-quarters of a mile from the entrance. The only danger in approaching it is the Atjeh Rock, lying off the end of the Sandakan Pier. It has 2¼ fathoms low water, and is marked by a white buoy. From the entrance to the end of the bay the depth of water varies from 16 to 3 fathoms. Some thirteen rivers run into the bay, and a bar has formed 6 miles from the entrance with a depth of water of 4 fathoms at low water, spring tides. Spring tides rise 6 feet 9 inches; neaps vary from 1 foot to 4 feet. On the same shore as the town of Sandakan, and about 10 miles below it, is an inlet known as North Harbour, 3000 yards across at the entrance, and extending inland about 3 miles, with an average depth of from 7 to 10 fathoms. The Sapa Gaya Bay, on the shore opposite Sandakan, affords splendid anchorage for large vessels, lowest water 3½ fathoms. There are other good anchorages in the harbour, well sheltered. A pier has been erected at Sandakan, at which vessels drawing 22 feet can lie at low water. Supplies of poultry, beef, fish, vegetables, and liquors are obtainable in the town, and the water is plentiful and good. A good stock of coal is kept up for the use of Her Majesty's vessels and calling steamers.

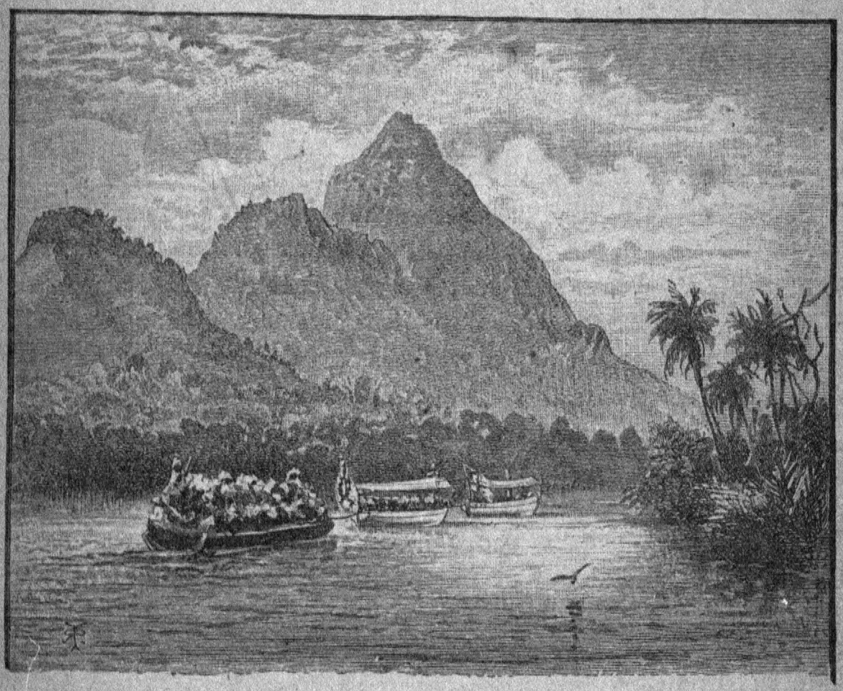
Admiralty plan No. 950 gives details of the harbour.

Thirty miles to the south-east of Sandakan is Dewhurst Bay, 5 miles up the Kinabatangan. It is 3 miles long by 1 broad, with depths of from 2 to 4 fathoms. Fresh water has not yet been discovered. The river between the entrance points is 6 cables broad, with depths of from 4 to 5 fathoms; but the bar which extends 2½ miles seaward, has a depth of only 12 feet at high water, spring tides. Commander Vereker adds the caution "that vessels drawing more than 8 feet should not attempt to cross the bar without a boat ahead, as the tides are much

influenced by the winds, rendering the time of high water uncertain."

A sketch of the Kinabatangan River will appear under its proper head, but it may be here remarked that the river has several mouths, and that the one usually made use of by small steamers is that known as the Mumiang, about 16 miles from Sandakan.

The mouth of the Marowap River, 52 miles to the east of Sandakan, is 7 cables wide at the entrance, with depths of from



VIEW IN DARVEL BAY.

3 to 5 fathoms. On the bar there is a depth of 14 feet at high water, spring tides.

Between Tambisan Island and the mainland is a narrow channel with 3 to 4 fathoms of water. The western end is blocked by a reef, though navigable for boats. The entrance is exposed to the N.E. monsoon.

Dent Haven, to the south of Tanjong Unsang, is nearly 2 miles wide, and affords good anchorage in the S.W. monsoon in 5 fathoms.

It may be noted that whereas in Sandakan spring tides rise

6 feet 9 inches, off Dewhurst Bay they rise 5½ feet, off Tambisan 3 feet, and in Dent Haven 3¼ feet.

The coastline from Dent Haven to the Sibuku River, including the large Darvel Bay, has not yet been properly surveyed.

In Labian Bay, and off Sibat, Tolibas, and Tuncu, is good anchorage in the N.E. monsoon.

At the head of Darvel Bay the north end of Saccar Island forms with the mainland a fine harbour, well protected in all weather. The soil in this district is some of the richest in Borneo.

At Silam is a Government station and Experimental Garden. The harbour is well sheltered, but there are many coral banks The depth of water varies from 2 to 20 fathoms. Vessels drawing 16 feet anchor close to the settlement. Beef, poultry, and fish can generally be obtained. The water is excellent and abundant.

In the southern portion of the bay there is deep water along the north and west of the Island of Timbu Mata, and a secure anchorage off Grassy Point, 3 to 13 fathoms, where deer and pig can generally be secured.

To the south of Grassy Point is a deep passage separating Culi Babang Island from the mainland, to which the name of Trusan (passage) Treacher has been given.

This passage, which is clear of dangers, is recommended by Lieutenant E. R. Connor, R.N., for vessels proceeding from Darvel Bay to Sibuku, or any of the numerous rivers north of the Sessajab. "This passage is much to be preferred to that viâ Omadal Island, as, in addition to being shorter, the long reefs running to the south-west of Omadal are occasionally somewhat difficult to make out."

At the northern end of Trusan Treacher, and on its western side, is the settlement of Simporna, founded in 1887 by Acting Governor Crocker for the reception of Chinese refugees from Maimbun (Sulu) on the destruction of that town by the Spaniards in the course of their operations against the Sultan Al Karim. The settlement stands on a piece of flat land some miles in extent, raised about 20 feet above the level of the sea, with deep water close to the shore; a good pier has been built, and there is a plentiful supply of excellent fresh water. The soil in the neighbourhood is said to be very rich, but of no great depth.

Between Omadal and Culi Babang is a well-sheltered anchorage

with 8 to 9 fathoms. There is no water on the island, the natives obtaining their supplies from the opposite coast.

Off Mabul Island good anchorage is found in the south-west monsoon, in 11 fathoms, mud.

Friedrich Haven, off the mouth of the Palas River, was surveyed by an Austrian frigate of that name. There is anchorage in 5¼ fathoms.

Between Batu Tinagat and the Sibuku River is an extensive bay recently surveyed by the Dutch. The depth of water runs from 17 to 2 fathoms. Some 14 or 15 rivers run into this bay, which is well sheltered, and affords excellent anchorages. The Dutch have a gunboat stationed at the Tawao River, but there are no villages to be met with, nor even boats, save occasionally some wandering Bajows engaged in the bêche-de-mer fishery, which is capable of great development, and only awaits the settlement of the boundary dispute with Holland, to which reference has already been made.

From the above sketch it will be seen that British North Borneo is exceptionally favoured in the matter of harbours, roadsteads, and anchorages.

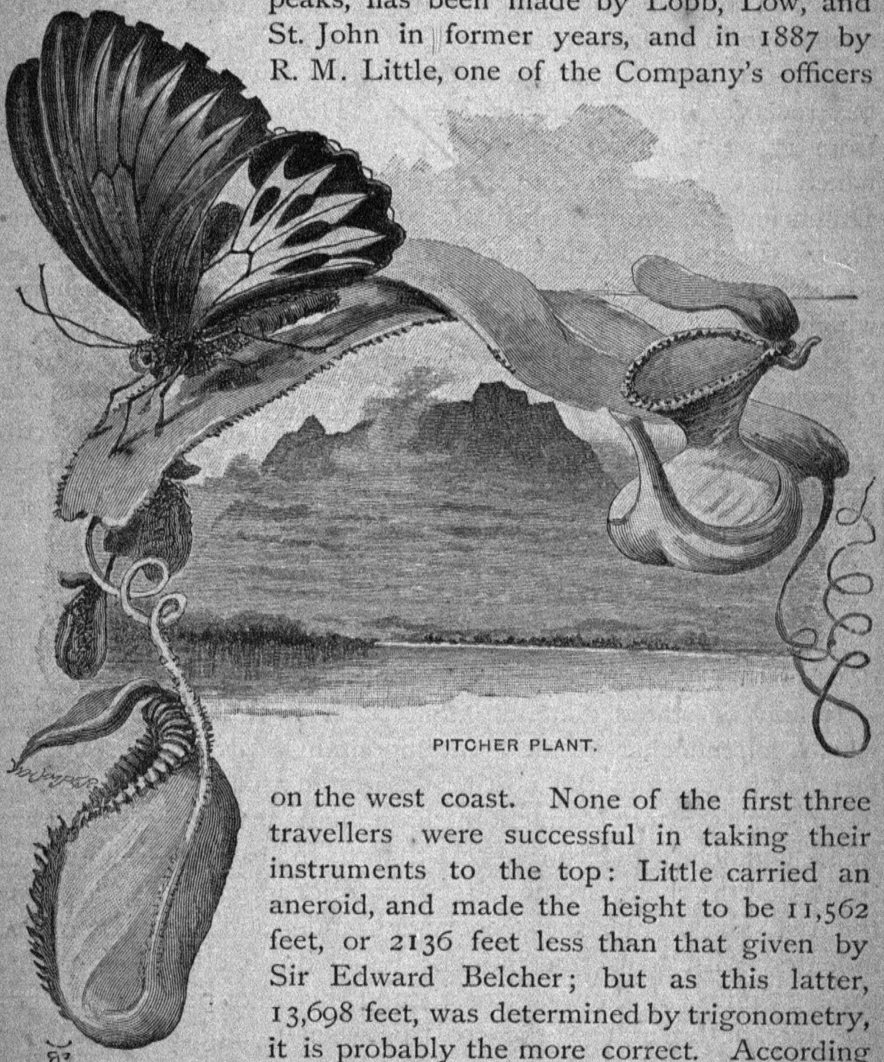
c. *Mountains and Rivers.*

The courses of the mountain ranges have not yet been laid down with any attempt at accuracy in the published maps.

It may be stated generally that there is a backbone range, which, commencing in the great mountain of Kinabalu (13,700 feet), 52 miles from the northern extremity of the island, runs in a south-westerly direction throughout the territory. The range is much nearer to the west than to the east coast, with the result that the rivers on the west are inferior in length to those on the east side, though the scenery is grander and the coast more indented with bays and inlets. Kinabalu itself rises within some 25 miles of the west coast; and this may be taken to be the average breadth of the coast between the backbone range and the sea. From this range, which has a height of from 5000 to 13,700 feet, many ridges are given off at right angles; and these in many cases are connected by cross ridges, running north and south. These ridges, as a rule, rise abruptly from the plains, and are steep and narrow.

In addition to this range, and between it and the sea on the west, is what is known as the Coast range, running parallel to it from somewhat to the north of Gaya to the southward, and with a height of between 3000 and 4000 feet.

The ascent of Kinabalu, though not perhaps of its highest peaks, has been made by Lobb, Low, and St. John in former years, and in 1887 by R. M. Little, one of the Company's officers



PITCHER PLANT.

on the west coast. None of the first three travellers were successful in taking their instruments to the top: Little carried an aneroid, and made the height to be 11,562 feet, or 2136 feet less than that given by Sir Edward Belcher; but as this latter, 13,698 feet, was determined by trigonometry, it is probably the more correct. According to St. John, the summit is about two miles in length, but the intrepid explorer Witti gives the summit an extent of 4 to 5 miles of about uniform height. He further states that the highest peak is incorrectly marked on the Admiralty Charts, and should be 5 miles to the S.S.E. of the point

there shown. Witti, who had observed Kinabalu from every side, writes as follows : —

"A chain 4500 feet high borders Kinabalu to the N.E., running S.E. to N.E., appearing like an enormous breastwork to the mountain as a redoubt, the Kopuakan Valley (containing one of the head waters of the Sugat River) forming the ditch, and Tambugukon (8000 feet), a formidable bastion. The whole looks from this side (the N.E.) impregnable, and is evidently impracticable."

Burbidge, in his 'Gardens of the Sun,' written in 1878, gave it as his opinion, after experience, that the easiest route to Kinabalu is by the Tampassuk River on the west coast.

Borneo differs from all the other large islands of what Wallace terms Australasia in not possessing a single volcano, either active or extinct.

The summit of Kinabulu is said to consist of syenitic granite, here and there crossed by belts of a white rock; below the granite a hard kind of shale and greenstone.

About 50 miles to the S.E. is an independent group of mountains, of which the highest is Mentapok, said to be 8000 feet.

In the upper course of the Labuk, which flows to the south of Mentapok, the banks on both sides are very steep, the hills rising from 200 to 500 feet.

About the centre of the Darvel Bay Peninsula is Mount Hatton, so named in honour of Frank Hatton, the Company's Scientific Explorer, who lost his life by an accident on the Segama River. Its height is marked on the Admiralty Chart as 1990 feet. To the south of this is the Bagahac range, the highest summit being 2750 feet.

At the back of the Government station of Silam is the hill known as Bode Silam, 3000 feet in height. Between Silam and the Sibuku River are several lofty peaks not yet examined.

For many years there appeared on charts and maps of Borneo a large mythical lake to the south-eastward of Kinabalu. The confusion appears to have arisen from the fact that an extensive plain some 30 miles to the east of Kinabalu is known to the aboriginal inhabitants as Danao, which has no particular signification in their language, but amongst the Malay-speaking tribes of the coast, from whom travellers would derive their information, signifies "a lake." This plain, 1600 feet above the sea, is of oblong form, extending some 4 miles by 1, surrounded

by mountains on each side, and watered by two streams, the Manzanaban and the Linogu, the latter being the source of the Labuk River. Danao is well cultivated, and for North Borneo, populous. Hatton, who visited it after Witti, was told that sometimes in the wet season the plain is a sheet of water for more than a month at a time.

Rivers.—The principal rivers are, on the east coast, the Kina Batangan, Labuk, Sugut, Paitan, Segama, Benguya, Moanud, Alfred, Sigaliud, and others; on the north the Bengkoka, Bongan, &c.; on the west coast the Padas, Kalias, Putatan, Tampassuk, Kimanis and others. Of the above the Kina Batangan is far the finest, being navigable for steam launches for over 200 miles, while its tributaries the Lokan, Quarmote, Karamok, Mengkowago and others are themselves fine rivers. Some days' journey up the Quarmote above its junction with the Kina Batangan are the Alexandra falls, never yet seen by any European. There is a way behind the mangroves from Sandakan Bay to the Kina Batangan. The Labuk is a river similar in character, but not navigable for steam launches for any great distance; its chief tributaries are the Galagaan, Toongud, Arngsoan and others; it falls into the sea in the Labuk Bay shortly to the north of Sandakan, to which place all its trade comes; all the above-mentioned rivers are capable of supporting a very large population.

The Padas is a very fine river, navigable for a long distance, and having on its banks many sago plantations, which are a source of considerable wealth to the inhabitants of the district.

CHAPTER III.

POPULATION.

THE population of British North Borneo is very scanty, so much so that vast tracts on the east coast and in the interior are simply uninhabited forest. On the west coast the population in some districts is fairly large. The want of people on the east coast is due to the ravages, in old days, of pirates by sea and head hunters by land. Commencing on the seaboard of the east coast, the first people met with are the Bajaus, or Sea Gypsies, on the littoral. The villages on the sea coast and at the rivers' mouths contain many Sooloos, Bugis, Illanuns, and others, but the first tribe of true Bornean aboriginals met with is the Booloodoopy, who have villages from Sugut and Paitan on the north to Tabunac on the south. Largely mixed up with them are the Doompas on the north and the Eraans on the south. Inland from these people the whole bulk of the population are known as Dusuns or Sundyaks, divided up into many tribes and sections, including the Roongas, Kooroories, Umpoolooms, Saga Sagas, Tunbunwhas, Tingaras, Roomanows, and many others, those of the far interior little better than roving savages, while nearer either coast, where they have rubbed against Mahomedan civilisation, they are much more cultivated both in their dress and manners. The Bajaus or Sea Gypsies are a curious wandering irresponsible sort of race, rather low down in the scale of humanity, living almost entirely in boats in families. Though undoubtedly of Malay origin, they are much larger in stature, and stronger and darker than ordinary Malays. Not caring to store up property, and rarely troubling themselves as to where next week's meals are to come from, they pick up a precarious livelihood, along the shore line, by catching fish, finding sea slugs and turtle eggs, spearing sharks, and so forth. They lead a wild, free, roving life in the open air, untroubled by

any care or thought for the morrow. The weapons they use are the parang, spear, round shield, and tumbeloosow; very few of them have guns. The tumbeloosow is a long light lance, made of bamboo, with a sharp wooden spike at the end; this they can throw for two or three score yards, thus giving them a great advantage over any people not armed with any projectile. The well-known Balignini were a subdivision of the great Bajau tribe; they used, as professional kidnappers, to harry the seas from Macassar, Batavia, and Singapore on the south, to Manila on the north; they did not, as a rule, murder without they thought there was occasion to do so. In Sandakan and other places there are many people now living who were kidnapped in very distant parts, and brought up for sale, in the old times. The last pirate raid along our coast was in 1879, when the Balignini murdered or carried off sixty-five people, Bajaus mostly; as late as 1881 they conducted raids elsewhere; but all this sort of thing has now, it is hoped, been put a complete stop to from all the coast under the Company's control. Many of those who used to be leading pirates have now quietly settled down to agricultural pursuits. The Illanuns are a race who inhabit the south side of the Island of Magindanao. Long ago their warfare against the Spaniards degenerated into general piracy; their usual practice was not to take captives, but to murder all on board any boat they took. Those in the Territory have all settled down to a more orderly way of life now, however. The Sooloos are a people inhabiting, principally, the Island of Sugh, in the Sooloo Archipelago; mostly lazy, independent and turbulent, they are not regarded with great favour by anybody, but brave, restless, and fierce,

SOOLOOS AT SILAM, BORNEO.

they made the best and almost the only traders in face of the numerous dangers that beset both sea and land to within the last few years, and many of them are settled down in every village along the coast line. Their ancestry is very mixed, there being a large infusion of both Arab and Chinese blood in their veins. A good many of the Sooloos are not bad fellows in their way when you come to know them.

Most of these Sooloos, Illanuns, Bugis, and other coast people, the Bajaus excepted, are well behaved, courteous, intelligent and even companionable. Leaving the coast, and before reaching the true tribes of the interior, there are generally some villages inhabited by a mixture of races, descendants of people from the interior, and of Sooloos, Bajaus, Malays, and others. These people, in some places known as the Doompas, used to oppress the natives on the one hand, exacting tithes of their produce, forcing sales of goods upon them at exorbitant prices, &c., while on the other they used either to stop traders ascending the rivers altogether, or to extort heavy tolls from them for permission to pass. The establishment of a firm government in North Borneo put an end to most of these irregularities some time ago. The first true tribe of the interior arrived at from the east coast is the Booloodoopy. The Booloodoopies are a somewhat singular people, many of them having strangely Caucasian features, or at all events departing largely from the ordinary Mongolian type. Some of them have well-raised bridges to their noses, and very round eyes. These peculiarities have been enlarged upon by a French savant, Dr. Montano, who visited North Borneo in 1880. The Booloodoopies are not very bold, and as the richest of the birds'-nest caves occur in their country, they have had to oppose cunning to the straightforward exactions made upon them from time to time by Sooloo and other rapacious adventurers. The Eraans in Darvel Bay are closely connected with the Booloodoopies, and like them are large owners of birds'-nest caves. At various times both these tribes have sought the society of Sooloo Datos, as a barrier against their fellow Datos, and a protection against the marauders who used to infest the country both by sea and land; and in many places there is a large infusion of Sooloo blood in consequence. In Darvel Bay there are the remnants of a tribe which seems to have been much more plentiful in

bygone days—the Sabahans. Most of them are so mixed with the Eraans as to be almost indistinguishable. Some of them, however, still have villages apart, remain heathens in their religion, and would practise their old customs, human sacrifice included, if allowed. In some of the birds'-nest caves, mouldering coffins are to be seen, rudely carved with grotesque figures, said to have been deposited there in bygone days by the old Sabahans. Many of these coffins are on ledges of rock at considerable elevations. Next above the Booloodoopies are the Tunbunwhas, or the first sub-division of the main tribe or people known as the Dusuns or Sundyaks, who constitute the chief portion of the population of British North Borneo. No completely satisfactory account of the Dusuns, or of the true Dyaks either, appears to have been yet written. The latter are spoken of as the aboriginals of Borneo, but even in them there seems to be a great similarity in many matters to Chinese, while the Dusuns would seem to be of nearly half Chinese ancestry. The idea that Chinese men and women came over in bodies and settled down in numbers at a time in North Borneo is perhaps not so probable as that, long ago, when a large trade was being done between Borneo and China, many Chinese, traders, shopkeepers, sailors, and the like, married women of the country, and settled down—this sort of thing is, in fact, going on even in this day—thus effecting a slow infiltration of Chinese blood, though not of Chinese speech or manners generally: though it is believed that in one or two places on the west coast Chinese is spoken and written, and Chinese customs are prac-

DYAK.

tised. In many places the modes of agriculture adopted by the Dusuns are far superior to anything of the kind anywhere else in Borneo, and are supposed to be due to Chinese influence.

Difficult as it is to tell how far the Dusuns owe their ancestry to Chinese, it is still more so to say where the Dusun ends and the Dyak proper begins. Many of the Dusun men in the interior wear the chawat, and the women brass waistbelts and gauntlets, just the same as the Dyaks, while nearly all the

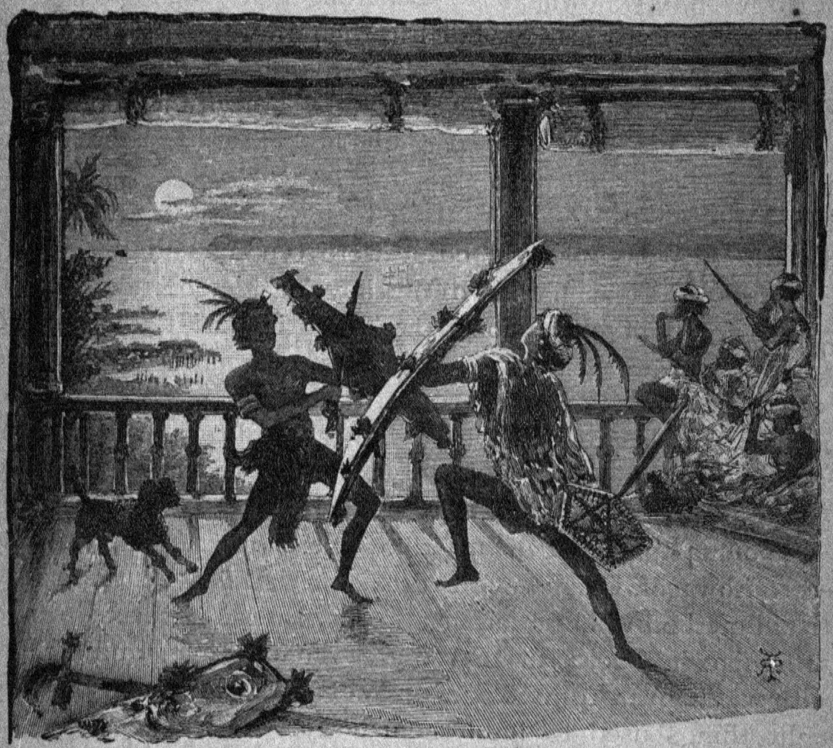
RETURN OF THE HEAD-HUNTER.

Dusuns have the same fancy for old jars, and most of them a modification of the head-hunting customs of the true Dyaks. This veneration for old jars is obtained without doubt from the Chinese. Is this any indication that Dyak ancestry also is partly Chinese? The taste for brass ornaments is very similar, although in an exaggerated form, to that of the Foochow Chinese. The sumpitan, or blow-pipe, is one of the principal

weapons of the Dusuns; the darts are tipped with poison. The coast people and Booloodoopies and most of the Tunbunwhas are Mahomedans, but the tribes more in the centre of the country are heathens, Kaffirs as the Mahomedans call them. Their belief is that after death they all have to ascend Kina Balu, which the good ones find little difficulty in accomplishing, and are thence ushered into heaven, while the wicked ones are left unsuccessfully trying to struggle and scramble up the rocky sides of the mountain. The Tunbunwhas and other Dusun tribes are greatly guided in their movements and operations by omens and dreams, good birds and bad birds, and so forth, and have superstitions in connection with a good many things. Though not such ardent head-hunters as the true Dyaks, still the Dusuns of the interior and west coast used to indulge a good deal in this practice. Only a few years ago many houses on the west coast were ornamented with heads hung up round them, and in the interior blood feuds between villages frequently occasioned head-hunting raids from one to the other. The men who took heads generally had a tattoo mark for each one on the arm, and were looked upon as very brave, though as a rule the heads were obtained in the most cowardly way possible, a woman or a child's being just as good as a man's. The true head-hunters were most formidable neighbours; there are none in the territory, as they all reside to the southwards. The possession of a head appears to be a certain method of ingratiating oneself with the fair sex. During the famine in Sooloo in 1879 a great many slaves and captives were taken over to Booloongan and there sold, and in most cases the purchasers cut off their heads for that reason. The number of slaves and kidnapped people so taken over was estimated at 4000.

Dancing is too universal a custom of the Dusuns and Sundyaks not to be mentioned. They will always on the slightest inducement get up a "mine boloogsi," as it is called, while in times of abundant harvests, dancing is going on all night long, night after night, in every village or cluster of houses. The dance is a very primitive one; a large ring is formed of men and women holding each others' hands, the men together and the women together, and they circle round and round with a sort of slow sliding step, singing or chanting in a somewhat weird and monotonous way

as they do so. The Bajaus have the "mine boloogsi" also; in their case the women form an inner ring and the men an outer one round a pole, and circle round it in opposite directions, and whereas the Dusun dance goes on slowly all night long till daybreak, the Bajaus get excited, and sing and dance faster and faster, bounding round the pole, till at last they are all exhausted. The most objectionable custom practised by the Dusuns was that of human sacrifice, or "surmungup," as they called it. The



DYAK DANCE.

ostensible reason seems to have been to send messages to dead relatives, and to this end they used to get a slave, usually one bought for the purpose, tie him up and bind him round with cloth, and then after some preliminary dancing and singing, one after another they would stick a spear a little way—an inch or so—into his body, each one sending a message to his deceased friend as he did so. There was even more difficulty in getting them to abandon this custom than there was to leave off head-hunting. Down in the south-east the way of managing "sur-

mungups" is for several natives to subscribe till the price of a slave is raised; he is then brought, tied up, and all the subscribers, grasping simultaneously a long spear, thrust it through him at once (this custom still exists down in Tidong and the neighbourhood). The tribes near the coast usually live in separate houses, two or three families in each house, though even amongst them six or eight families will sometimes be together; but in the interior twenty or more families will live under one roof, in what is known as a "benatong" or long house, each family having its separate apartments, the doors opening on to a sort of covered corridor. All these houses are well raised off the ground on poles, in the Malay fashion. In the interior amongst the heathens, the space underneath the house is frequently utilised as pigstyes.

Some of the things these people buy are most expensive; sixty and seventy dollars is frequently given for a single sarong. Men of industrious habits can easily be overburdened with the quantity of goods they can acquire. Up the Labuk, where large earthenware jars are what the people most covet, some of the family residences are crammed full, top and bottom, and hung up to the roof with these rather cumbrous evidences of wealth. It may be said generally that whatever they want they buy, irrespective of cost, from a bundle of tobacco to a gold-hilted creese. Amongst some of the tribes brass ware of various kinds used to be much valued, a great deal on account of the facility with which it could be hidden in the forest, or even in mud at the bottom of rivers. In the old days keeping any visible wealth was a sort of challenge, and consequently people as they bought things used to hide them away. The whereabouts of many of these deposits have been lost, and it not unfrequently happens that produce-collecting parties in the forest stumble across a lot of brass cannon, old gongs, &c. One of the customs of the Tunbunwhas worth mentioning is that of embalming the dead. This is done with the valuable Barus camphor, abundant in the woods in their neighbourhood, more particularly on the Kina Batangan; it is worth some 60*s.* or 80*s.* a pound; the coffins, in which they bury their dead, are hewn out of a solid piece of billian (iron-wood), and are of considerable value. On the west coast the population is thicker, the produce has been mostly cleared off, and the people have to give a much more steady

attention to agriculture, and undertake various manufactures themselves. As we come over to the east coast the people are lazier, undertake little agriculture and less manufacture. On the coast line, however, the Bajaus and Sooloos make a few things. There is a curious resemblance between the sarong and the Scotch kilt, and in the manner they are worn, and an even closer one in their designs; the plaid of some of the commoner sarongs is said to be the Bruce tartan, while many others, it is said, are of the Stuart pattern.

Mention is made by Mr. Dalrymple of a tribe distinct from the Dusuns, known as the Tagaas, who inhabit some of the mountains of the west coast, and who he seems to think are the descendants of some old and distinct race.

From the above remarks it will be gathered that the main race inhabiting British North Borneo, the Dusuns, are in all probability descendants of a mixed aboriginal and Chinese ancestry, and that as we come nearer to the coasts the sub-tribes mix and blend with each other and with aliens, till on the east coast there is very little of the native type left at all, a race rapidly springing up there of very cosmopolitan origin. On the west coast there are more natives and fewer aliens, but much the same thing is occurring there on a smaller scale. The Dusuns in character are quiet and orderly, and not particularly brave, and no doubt would be industrious if occasion arose; a very good rural population, with somewhat rustic notions. Any slight bloodthirsty tendencies, to which circumstances and the want of proper restraint have driven them, are gladly abandoned wherever the Company's influence has spread. They show every symptom of thriving and increasing, under a proper firm Government, and there is no fear of their melting away and disappearing like so many races have done when brought into contact with the white man. Much the same thing may be said of the sea-coast races, who also possess many good workaday knockabout qualities, but not to the same extent as the Dusuns. Of these, the Bajaus are probably doing the best in some districts, Sandakan particularly, as they bring their great strength to bear on fairly rough work, are increasing and multiplying rapidly, and are even beginning to build houses. The Sooloos are the principal fishermen, and take not a small share of the trade amongst the islands, while all are glad to seize the opportunity of living quieter and more

secure, if less adventurous, lives than they used to do in the old days. At first there was a slight difficulty in persuading some of them to settle down to a more orderly state of things; but for long past matters have been going on smoothly and quietly, except in some of the quite outlying districts; while it is not an uncommon thing to see large bodies of people—men, women, and children—from other parts, generally under some grave and peace-loving chief, come sailing into the Company's waters to settle under its flag.

CHAPTER IV.

CLIMATE, METEOROLOGY, ETC.

THE following remarks are based principally on a Report by Dr. James Walker, A.M., M.D., the principal medical officer, and give the fullest information obtained under the above heads.

Preliminary.

The climate of British North Borneo is noticeable for nothing more than for its equability and the absence of extremes. The temperature, rainfall, winds, natural phenomena generally, and the diseases, are, for a tropical country, of the most mild and temperate types.

In studying the climate it will be convenient to take in detail the following headings, viz., (1) Monsoons and Winds; (2) Rainfall; (3) Temperature; (4) Peculiar natural phenomena; (5) Effects on health generally of the climate; (6) Prevalent climatic diseases; (7) Diseases not due to the climate; (8) Epidemic diseases; (9) Health of different nationalities; (10) Sanitary precautions; (11) Sanitaria.

It may be noted here that the remarks are chiefly founded on observations made at Sandakan, supplemented by occasional visits to Silam and Kudat, and by reports from these and other out-stations.

§ 1. *Monsoons and Winds.*

The monsoons are the north-east and the south-west.

The north-east monsoon commences about the middle of October and continues till about the middle of April. During the greater part of this time the wind blows steadily and with moderate strength from the north and east. In the course of

this monsoon, more particularly in December and January, there are generally one, two, or three moderately steady gales, lasting from three to nine days. At other times the wind is a moderate breeze from about 11 A.M., getting rather stronger towards evening, and dying away in the early morning, when it may be overcome by a gentle land breeze. At the beginning and end of the monsoon the wind is not so strong or so steady, and the land breeze continues till later in the forenoon.

The south-west monsoon lasts from about the middle of April till the middle of October. The wind, as a rule, is not so strong in this monsoon, the land-breeze in the morning better marked, and the gales not so strong nor so long continued as in the north-east monsoon. On the other hand, there are frequently squalls in the afternoon and evening, lasting for an hour or two, and sometimes blowing with the strength of a fresh gale. Neither in this monsoon, nor in the north-east, does the wind rise to the strength of a storm or even of a whole gale.

No regular record of barometric pressure has been kept, but Mr. Flint, who kept a barometer for some time at Kudat, found that it generally stood at from 29·80 to 29·90.

§ 2. *Rainfall, etc.*

The annual rainfall near the coast, according to the records kept at Sandakan, has during the last ten years ranged from 157·14 to 101·4, and has averaged 123·89. The general meteorological returns of the whole territory have been tabulated by Mr. R. H. Scott of the Meteorological Office; and will be found in the Appendix.

The true wet season occurs in the north-east monsoon, and includes the months of November, December, and January, and generally part of either October, February, or both. During this wet season the greater part of the rain falls as general rain from a uniform dull grey sky, and is pretty equally distributed between day and night. This wet season does not, however, come up to what seems to be commonly understood at home by that expression—of incessant rain for weeks or months. I have never known the rain to continue without interruption for more than forty-eight hours; and on an average there are not more than six

or eight days on which rain falls for the whole twenty-four hours. During the wettest month recorded in Sandakan (January, 1882), there were eleven days without any rain at all. The heaviest uninterrupted falls of rain registered in the wet season are 7·90 inches in fourteen hours on January, 1884, and 9 inches in twenty-four hours in January, 1886.

The true dry season immediately follows this true wet season, and includes March and April, and generally the whole of May and part of February. During this time, any rain that falls generally occurs in showers during the night and early morning. There has been no month without several showers, and even in 1885, when there was an exceptionally severe drought both here and in the Straits, during March and April, there was rain on six days in March and on ten in April, while during these two months of the most severe drought yet experienced here there was a rainfall of 1·35 inches. During March, in that year, there was no measurable rain for twenty-two days in succession—by far the longest period on record. It may be noted here that the drought during the months of March and April has been more severe than formerly during 1884, 1885, and 1886, and that some are inclined to ascribe this to the extensive jungle felling and clearing. That this was not the real cause of the severe drought of 1885 is at once evident from the fact that the drought was general and not local; but on the other hand it must be admitted that were the jungle cutting of sufficient extent to influence the rainfall in any way, its effect would first be felt on the localised showers of which the rainfall during these months is mainly composed.

This true dry season is followed by a period of moderate rainfall, commencing generally about June. The first month or six weeks of this period almost deserves to be called a second wet season, and the rest of the period up to the commencement of the true wet season might be described as the second dry season. As, however, the boundaries of these two are ill-defined, their characters similar, and the difference in rainfall comparatively small, I think it is better to consider them together, as a sort of intermediate season. During this period the rain falls chiefly in heavy squalls (either with thunder or from thundery-looking clouds), occurring most frequently in the afternoon and evening, but not confined to that time; and it is during these

rain-squalls that the heaviest falls of rain occur, such, e.g., as that on the 15th June, 1884, when 2·05 inches of rain fell in forty minutes (accurately timed and measured). For the actual amount of rainfall during the various months, detailed accounts are given in the tables in the Appendix.

As already stated in the Preface, these remarks are founded chiefly on observations at Sandakan. On the west coast the rainfall is similarly arranged, with the exception that popular report, supported to a certain extent by the few returns available for comparison from that district, places the various seasons there about a month earlier than on the east coast.

The water-supply of the country is so intimately connected with the rainfall that a few lines may appropriately be given to it here. The rain does not collect in lakes or pools, but quickly disappears, either carried off by the free surface drainage of the country, or absorbed by the porous soil. Thus the supply of fresh water must be got from streams, springs, wells, or artificial reservoirs. As the soil is generally absorbent, and retains the moisture, there will probably be little difficulty in this matter, either in the interior, or in such places as Sandakan, Silam, or Gaya, where there are hills near the coast. In some places near the coast, however, there will be difficulties, as the rivers are for miles mere salt-water lagoons, while the deltas are flat stretches of alluvial soil, raised only a few feet above sea-level, with a substratum of clay, at a depth of a few feet, and below that again a bed of decomposed mangrove-wood, &c. In such places the water-supply during the dry season has hitherto been very unsatisfactory as regards both quantity and quality, and consisting either of water from the surface wells down to the clay, or still worse of water impregnated with the organic matter from the decomposing bed of mangrove below. It will probably be found in the future that in many such places a satisfactory supply can be obtained by Artesian wells penetrating to the underlying rock, which will probably prove to be either limestone or sandstone.

Under this heading may be mentioned also the heavy mists that frequently occur in the rivers during the night, and that are not dissipated till they get the full force of the sun from 8 to 10 A.M.

It may perhaps not be out of place to give some account of

the stations at which the meteorological observations have been taken. They are, on the east coast, Silam in the south and Sandakan about the middle of the coast; on the north, Kudat; and on the west coast, Gaya at the middle, Papar farther south; and Mempakol at the extreme south. No stations have been started in the interior so far.

Silam is situated at the head of Darvel Bay, a large funnel-shaped bay about 90 miles deep, and opening to the east-south-east. The station is on the sea side at the foot of Rock Silam, a mountain rising within about a mile of the station to the west, to a height of 3000 feet. Spurs of the mountain stretch to the north and south of the station, which is thus closely hemmed in except on the east and south-east. The observing station is some 200 yards from the beach, and only about 10 feet above sea level. The soil in the immediate neighbourhood is a brown soil, thickly mixed with small stones, and is for the most part covered with thick grass and a little undergrowth.

Sandakan, situated on Sandakan Harbour, an irregular-shaped bay some 15 miles deep by 5 across at the widest part, narrowing to about 1¼ miles at the mouth, where it opens in a north-easterly direction on the Sulu Sea. The town is situated on the north-west shore about two miles from the north of the bay, on a narrow ridge of land between the harbour and a ridge of hills which rise to a height of from 300 to 600 feet, and in a valley which runs up through these hills in a north-westerly direction. Up to some three years ago the meteorological observations were taken on a small hill close to the beach, and 50 feet above sea-level. At present the station is situated on a spur of the hills near the head of the valley, 550 yards from the beach and 100 feet above sea-level. To the south and south-east is the mouth of the valley; on the south-west and west are abrupt hills, at a distance of some 400 yards, rising to a height of some 500 feet. On the north the ground rises gradually from the station to a height of some 35 feet, at a distance of 250 yards. At the north-east, at a distance of 180 yards, is a narrow ridge, only some 20 feet higher than the station dividing the town valley from another valley, which extends for some two miles in a north-east direction to the Sulu Sea; and on the east is a hill rising to 600 feet, about a mile and a half off. The soil in the neighbourhood is a red sandy clay, which is partly

exposed and and partly covered with rough grass and undergrowth.

Kudat, situated on the north shore of Kudat Harbour, a bay some six miles miles deep by two broad at the mouth, where it opens due east on Marudu Bay. The observing station was formerly placed on a sand spit on the shore of Marudu Bay, but is now on a hill about 200 yards from the beach, and 60 feet high, and with no higher ground in the immediate neighbourhood ; the soil is a dark red clay, and is for the most part covered with grass.

Gaya is situated on Gaya Island, an island about six miles long by three broad, and about three miles from the mainland. The station is on the face of a hill facing the east, at an elevation of about 60 feet above sea-level, and the hills on either side bend forward so as to shelter the station somewhat from the due north and south, while the hill behind rises sharply to a height of 200 feet. The soil is a bright red clay, and is, to a considerable extent, exposed.

Papar, situated on an alluvial plain by the Papar River, at a distance of some two miles from the beach, and some eight from the coast range behind. There are no rising grounds in the immediate neighbourhood. The soil is brown alluvium, with a substratum of sand (cultivated). The station is only some 10 feet above sea-level.

Mempakol, situated on a sand spit on the most south-westerly point of the territory to the north, at a distance of some two miles in a low ridge of hills, and towards the east there is a swamp behind the station. The soil in the immediate neighbourhood is sand, partly exposed, partly covered with grass and cocoanut-trees. The station is only some 10 feet above sea-level.

§ 3. *Temperature.*

The temperature recorded at the coast has ranged between the extremes of 67·5 and 94·5. Until within the last few months, however, these records have been taken from thermometers kept in the shade of a verandah—with the exception of Kudat, where there was a thermometer-shade two years since ; but little or no inferences can be drawn from the records there,

as the meteorological station is on a sandy plain, the temperature of which was several degrees above that of the country generally. Judging from the results of the observations at Sandakan since the proper shade was erected, I think the minimum records fairly well represent the truth, while the maximum records are from two to three degrees over the true "temperature in the shade."

On reference to the tables in the Appendix, it will be seen that the difference in temperature between different seasons of the year is very slight. The lowest average temperature for both maximum and minimum registers is during the wet season in December and January; the highest average temperature during the night (minimum) occurs during the dry season in April and May, whilst the highest average temperature during the day (maximum) is in August and September. The lowest actual temperatures are generally recorded during the rain-squalls of June and July during the evening or early part of the night; but as a rule the lowest temperature is reached about 2 A.M. The range of maximum temperature for the month is only from 80·88 in February, 1879, to 92·65 in April, 1885; while the range for the monthly mean minimum temperature is still smaller, from 71·46 in December, 1883, to 78·0 in April, 1883 (Kudat).

With regard to the other stations, compared to Sandakan, it may be said that Kudat is on the whole one or two degrees warmer, while the stations near Papar, being influenced by the cold winds from the hills, are several degrees colder. Silam also is probably colder than Sandakan at night. In the hills of the interior the temperature falls much below the figures given above; and it is probable that freezing-point is occasionally reached near the top of Kinabalu: the lowest recorded temperature I have found is 36·5, recorded by St. John, in his 'Life in the Forests in the Far East.' *

* The clear atmosphere and free evaporation prevents the temperature recorded from being oppressive.

§ 4. *Peculiar Natural Phenomena.*

On this subject there is little to be said, more particularly as no accurate records have been kept. The absence of tornadoes, cyclones and earthquakes is to be noted. The only indication of the existence at the present day of any volcanic action is the report of a hot spring near the coast.

The peculiar phenomena of tropical climates generally are found here; thunderstorms with much sheet-lightning are frequent during the months from July to September, and are sometimes severe. Mirage is generally present in the afternoons to a slight extent. Phosphorescence occurs to great perfection in Sandakan Bay; and more than one ship-captain has been heard to say it is seen better there than in any other locality. Of other meteorological phenomena nothing need be said, as the mere mention of their existence, in the absence of any accurate records, would be of no value.

§ 5. *General Effects on Health.*

On this subject the materials are as yet far too meagre for the formation of definite opinions; and it is difficult to formulate with sufficient clearness the impressions conceived in the absence of absolutely complete records, and at the same time avoid appearing to be dogmatic on insufficient premises.

The general impression as to the salubrity of the climate is, that it compares not unfavourably in that respect with other tropical climates, such as that of the Straits, &c. Diseases seem generally of a mild type and amenable to treatment; and although in Borneo, as in all tropical countries, those making new clearings in the jungle are liable to sickness, yet the immense improvement recently of the two stations which, at the time they were opened, were looked on as exceptionally unhealthy (Silam and Kudat), gives good ground for hope that the sickness of newly-opened clearings will not last for very long. The places where such sickness is likely to continue longest is in the deltas of the larger rivers—in which most of the planting experiments were originally made—as, in addition to the unhealthiness of a newly-opened clearing, the difficulties

in the water-supply, and the sickness caused by the mangrove swamps in the neighbourhood and by the heavy river mists, had to be encountered.

As regards the influence on health of the different forces that go to make up the climate, it is difficult to make any general conclusions. It is even impossible to say, for the country as a whole, which monsoon or which season of the year is the most unhealthy. In some individual parts the south-west monsoon is by far the most unhealthy, and this is especially noticeable at Kudat and Silam, where, during the south-west monsoon, fever is prevalent and rather severe, while during the north-east it is mild, and at Kudat now almost absent. At these stations the evil influence in the south-west monsoon is undoubtedly the stronger winds, which, blowing over the whole of Borneo, reach these places laden with the impurities collected from swamps, &c., in their passage, while Sandakan is protected from this influence by the purifying effects of the bay, over which the south-west winds have to sweep for a distance of some fifteen miles before reaching the town; and consequently at that station there are no clearly-defined "healthy" and "unhealthy" seasons, as at the two others mentioned. The only other well-marked influences for evil in the climate are, (*a*) In certain places diminution in the quantity and deterioration in the quality of the water during the dry season; (*β*) Impurities in the water in places deriving their water-supply from streams on the first commencement of rains after a drought; this influence is most felt in June, after the true dry season. (*γ*) The effect of the floods that every year cover large areas near the rivers is distinctly to increase the tendency to fever and allied diseases among the inhabitants of the neighbourhood. (*δ*) The heavy river mists aid in the production of fever, asthma and phthisis. Beyond this all is mere vague impressions, the most definite of which is that there is an increase of sickness, especially of the respiratory system, and malarial diseases, about the change of the monsoon. It may be specially pointed out that the unhealthy season of India, the so-called "cold" season, does not exist in North Borneo.

§ 6. *Prevalent Climatic Diseases.*

The chief diseases to be considered under this head are fever, beriberi, and dysentery. In addition to these a few lines will be given to anæmia and sunstroke.

(1.) Fever forms about a quarter of the cases treated in the Government dispensaries and hospitals. It must be remembered, however, that a considerable proportion of the cases enumerated under that name are not malarial, but simple continued fever, or febricula. As many of the cases come only once to the dispensary for a supply of medicine, and that after a single slight feverish attack, it is impossible to draw a hard-and-fast line between the two classes, or to give the exact proportion; but it may be taken that at least a third of the cases of "fever" belong to this milder type. Of malarial fever the type is generally a mild intermittent quotidian fever, which yields readily to treatment. Remittent fever is seldom seen, and only in some very unhealthy rivers, or in the case of Chinese, who have not defœcated for from six to ten days. The malignant type of "jungle fever," sometimes seen in the native states and elsewhere, has hardly ever been encountered in North Borneo. There are certain local differences in type which deserve notice: thus, at Sandakan the type is as described above, and with a tendency to leave behind it muscular pains (pseudo-rheumatic) greatly in excess of what would be expected from the mildness of the attack. At Silam the fever, after the first ten days or a fortnight, almost invariably assumes the Tertian, Quartan, or Quintan type, and is more intractable, while from almost the commencement it yields more readily to arsenic than to quinine. At Kudat the local characteristic is the severity of the bilious vomiting that generally occurs during the first few days of an attack of fever during the strong winds of the south-west monsoon, and the nervous depression and headache that ushers in the attack; while in the district of Padas, the permanent effects on the spleen would seem to be more severe than in the other stations.

(2.) Beriberi occupies an important position in the list of diseases of Borneo, partly on account of the high rate of mortality it gives, and partly on account of the extent to which

it has already interfered with planting. It has broken out in some of the plantations opened on the rivers in Sandakan Bay, and has claimed its quota of victims not only in these—Segaliud, Domoondong, Suanlamba, and to a less extent, Sapagaya—but also in the native village of Melapi, at the birds'-nest caves at Gomanton, among some of the parties of Dyaks collecting produce on the upper waters of the Segama, and to some extent on the Island of Banguey. This disease generally appears almost in the form of an epidemic, and is generally closely restricted both to the locality and the race among whom it at first appears. The cause of this obscure disease is as yet uncertain; some ascribe it to the food, more especially to bad rice and fish, and there is no doubt that a generous diet has a strong curative influence in the disease; but on the whole, from its many analogies with malarial fever, and the strict localisation of the disease, there seems a good deal of ground for the view that it is due to a specific miasm or exhalation from the soil. There are two distinct forms of the disease, which may not improbably ultimately prove to be distinct diseases. (*a*) The wet, or dropsical, form is the more common and dangerous. It frequently commences with a short attack of intermittent fever, at other times with only slight malaise. The first two distinctive symptoms are œdema of the feet, and diminished sensibility of skin of the front of the leg and dorsum of the foot, "as if there were a sheet of paper over it." (The diminution in the sensibility of the skin around the mouth mentioned by some writers has not been common in Borneo.) These two symptoms may occur simultaneously, or either of them may appear some days before the other. They are soon followed by a feeling of heaviness of the feet, loss of power of the muscles of the front of the legs, and consequent toe-drop and characteristic walk, and spasm and tenderness on deep pressure of the muscles of the calves and back of the thighs. Soon the œdema extends, the paralysis of the legs increases, and the red corpuscles of the blood get disintegrated, but there are no hæmorrhages, no albuminuria. At this stage the deep reflexes do not seem to be affected, and there is no spinal tenderness. Soon there occurs general dropsy, with pericardial uneasiness, and effusion into the pericardium, pleura, or peritoneum, and sometimes marked œdema of the scrotum, which is to be looked on as a bad

symptom. At this stage attacks of diarrhœa occur, but the appetite remains good throughout. In the fatal cases death generally occurs from sudden effusion into the pericardium, or from atrophy and degeneration of the heart, or from simple exhaustion. Recovery is generally protracted, and meanwhile the patient is liable to relapses, or to sudden death, from failure of the weakened heart, on any sudden change of temperature or unusual exertion, or simply from overloading the stomach. The so-called malignant form seems to be merely a subdivision of this form, in which, without premonitory or other initial symptoms, there is sudden effusion into the pericardium, and death. (β) The dry form is characterized by motor paralysis of the legs, and also, at a later stage, of the arms, and in extremely severe cases, the muscles of the larynx, causing the voice to become a husky treble; diminution or loss of tendon reflex, and a marked loss of sensibility. In the early stage there is generally found to be tenderness on firm percussion over the fourth, fifth, or sixth dorsal vertebra, and a blister over this spot, followed by full doses of strychnine, arsenic and iron, occasionally results in speedy cure. The result in this form is generally protracted recovery; and death, when it does occur, is usually due to the supervention of the dropsical form.

(3.) Dysentery is not prevalent, and where it does occur the acute form is almost always mild and amenable to treatment. Even chronic dysentery generally yields to careful treatment, and has proved dangerous only when it has existed for a long time without any treatment, or when complicated by opium-smoking.

(4.) Anæmia occurs here from various causes. Europeans frequently suffer from it to a slight extent when they first arrive. Chinese also suffer from it when they come here direct from China, and in their case it is sometimes more severe, and occasionally causes death. Among Chinese wood-cutters some very severe cases of anæmia accompanied by severe ulcers have occurred. It frequently follows fever. Among the Dyak produce collectors in their long journeys up the rivers of Borneo it also occurs, probably in consequence of deficiency in their food, and takes the form of incipient scurvy. A few cases of severe anæmia produced by epistaxis have also been recorded.

(5.) Sunstroke does not occur frequently, and is generally confined to natives and Chinese; and in addition to these it is probable that some of the cases of "found dead" were due to this cause.

§ 7. *Diseases not due to Climate.*

Diseases of the respiratory system form only a small percentage, and are chiefly simple catarrhal attacks of the nose and larynx, and occasionally mild bronchial affections. Phthisis is not common, and is generally a sequence of the bronchial asthma caused among the natives by the river mists. Heart-disease also is infrequent, and is generally a sequence of fever or beriberi. Rheumatism, in the form of muscular rheumatism, occurs frequently, but rheumatism affecting the joints is rare and generally gonorrhœal in origin. Acute rheumatism is hardly known in Borneo. Diseases of the alimentary system form a large percentage of the cases, but are chiefly functional, —constipation, diarrhœa, atonic dyspepsia— and occasionally slight gastric catarrh. Disorders of the liver are also chiefly functional, but include a few cases of congestion from exposure to the sun, &c., and a few cases of hepatitis. Diseases of the genito-urinary system form only a small portion of the whole; and of these venereal diseases form more than half. Venereal disease was almost, if not quite, unknown among the natives previous to the arrival of the white men among them; at the present time gonorrhœa is the only disease prevalent, only some five or six cases of fœcal-contagious sores have been seen, and only one Hunterian chancre (introduced from Labuan by a Sikh). Gonorrhœa in the natives is very easily cured; while in the Europeans, and to a less extent in the Chinese, the relaxing climate tends to make it have a tedious course. The natives are subject to a rather severe form of idiopathic orchitis. Diseases of the nervous system and organs of sense are not comparatively numerous: they consist chiefly of neuralgia, conjunctivitis, and ear-ache; in addition to these, two cases of cerebral apoplexy, three or four of epilepsy, some six of insanity (Chinese and Arabs), two of cataract, and a few of otorrhœa make up the greater part of the remaining cases. Skin diseases include itch, chiefly among the Chinese, and ringworm (principally imbricata), which is found chiefly among the natives, but

occurs in all races. *Pityriasis versicolor* is common among the natives, but as it has the effect of making their skin more white than natural, they do not as a rule object to it, or wish to have it cured. Abscesses, boils and ulcers are rather prevalent; the ulcers are generally either irritable or indolent ulcers, sometimes sloughing ulcers occur also among the Chinese; besides which there are many cases of simple ulcers due to neglected injuries got in jungle clearing. The diseases of joints were chiefly simple synovitis.

§ 8. *Epidemics.*

The only epidemic diseases that are known to have appeared in North Borneo are small-pox and cholera.

Small-pox seems to have spread through the whole territory some twenty years ago, and at that time did immense damage, clearing off whole villages and depopulating extensive tracts of country: it is said, in fact, to have carried off fully one-half of the population. Again, in 1883, two cases were imported from Hong Kong to Kudat, but the prompt action of Mr. Wheatley, the then medical officer of the West Coast, prevented the disease from spreading farther.

Cholera was brought to the country in the first half of 1882, being first brought by a native prahu to a village at the mouth of the Labuk River, and from that to Sandakan—there was also a suspicion of independent infection brought from Sooloo to Sandakan by one of the steamers about the same time—and from these two centres spread over nearly the whole of the coast, and on the west coast penetrated to the interior, and carried off a little over a thousand victims. This disease is said to have previously visited the west coast about the same time as the small-pox outbreak; but it does not seem to have previously visited the east coast, as the natives had no name for it, and simply called it "The New Disease."

As to the means of defending the country from similar outbreaks in future, it can to a considerable extent be defended against infection from a distance, by quarantine and inspection of steamers, &c.—the London quarantine regulations have been adopted, with a special clause providing for absolute quarantine at stations where there is no medical officer—but against infection from immediate neighbours in Sooloo and

Dutch Borneo, &c., it is practically helpless, in consequence of the frequent communication by native boats between these places and native villages, where there is no one to take the necessary precautions.

Vaccination is being carried on as well as possible in the face of considerable difficulties. The Bruneis and Malays are the only races that willingly aid in this; the Chinese are anxious for vaccination for themselves and children, but have a strong prejudice against supplying lymph for the vaccination of others; the Sooloos are generally apathetic on the subject, while the inland tribes identify vaccination with inoculation, and in most cases strongly object to it.

§ 9. *Nationalities and Diseases.*

On Europeans the climate has, with proper precaution, an enervating but not a dangerous effect. During the nine years that the Provisional Association and the Company have held sway here, few Europeans have fallen victims in the country to disease that could fairly be ascribed to the climate. Eurasians have much the same relation to the climate as Europeans, and seem if anything rather more liable to fever, and less to the general depressing influence of the climate.

The Indian races on the whole stand the climate well. The Sikhs and Bengalees have attacks of fever, colic, constipation, and occasionally slight dysentery, but there have been but few deaths among them. The Klings are also fairly healthy here, but like others have occasional attacks of fever, and in two cases beriberi. The Cingalese who were brought here for the Survey Department suffered severely from fever and its results.

The Chinese are the only race that can be said to be decidedly unhealthy in this climate, and even of these this can be said only of those fresh from China, and sent to work in the jungle before they are acclimatised. Men such as these contribute more than half of all the deaths registered in Sandakan, succumbing chiefly to fever, beriberi, and anæmia, with ulcers.

The Dyaks from Saráwak have excellent health in North Borneo. Even in the long journeys up country in search of produce, often lasting for six months or more, and during which they are exposed to all the evil influences of the climate, and are

frequently badly off for food as regards both quantity and quality, although they occasionally suffer from attacks of fever and diarrhœa, few of them succumb; and even when beriberi breaks out among them it generally assumes the "dry" form, and the mortality is, for that disease, small. When acting as constables, being much better looked after and not exposed to the climate, they have almost no sickness except an occasional slight touch of muscular rheumatism, or a mild return of fever contracted in some of their previous journeys as produce collectors.

The natives of the country suffer chiefly from fever, muscular rheumatism, ringworm (chiefly the imbricate form), and in some places spleen and asthma, and occasionally phthisis. A noticeable point with regard to the natives is the immense mortality among infants: nearly a fifth of the children born seem to die within twenty-four hours of their birth, while many more die within the first few weeks of life; and altogether fully one-half, I think, die during the first year. The natives look on this as all in the proper course of nature, and though anxious to have children, never think of applying for medical aid for the ailments of such young children. Consequently no exact details exist of the causes of death in these cases, but it is gathered that they are chiefly improper management at birth, and fits and bowel complaints from improper feeding. The women get over their confinement easily, and the only death in child-bed reported in seven years was that of a native woman—a very exceptional case—who at one birth produced four children alive, and died with a fifth still unborn.

§ 10. *Sanitary Precautions.*

The sanitary precautions to be observed here are the same as in all countries in the tropics, and need be only glanced at rapidly. The most important are, temperance and regularity in food and drink, and attention to the excretions; daily bathing, regular exercise, careful avoidance of unnecessary exposure to the sun by day (especially if exhausted from any cause), or to sudden chills or malarious exhalations by night; and prompt attention to petty ailments at the very commencement.

In selecting the site for a house or settlement the usual

precautions must be taken; the site should be on a rising ground in the centre of a considerable clearing, and not in the immediate neighbourhood of swamps, or of any considerable extent of newly-felled jungle or of freshly-turned soil, nor in such a position that either of the prevalent winds blows directly from any of these towards the house, even from a considerable distance. Failing the possibility of these points, the house should be raised well above the ground (eight or ten feet) on piles; and in the unhealthy winds fires to windward are said to greatly neutralise the malarious influence. The supply of water should be taken if possible from springs, and failing that from deep wells; and when there is the least suspicion of the quality of the water, it should be well boiled before being filtered.

Travelling in North Borneo on the rivers is usually done in the small native boats, and on such journeys a most important point is to overcome the difficulties in the way of getting regular exercise. Several of the Europeans who have travelled in the interior have got sick entirely in consequence of the neglect of this. In addition to this the usual well-known precautions must be taken: abundance and good quality and variety in the supply of food, careful boiling of the water for drinking purposes, lighting fires to windward of the camp in malarious places, using a blanket at night, and taking some food before starting in the morning, having a proper supply of simple medicines, and *using them at once when they are required, &c.*

§ 11. *Sanitaria.*

In the future, when the country gets opened up, there will be comparatively little difficulty in forming sanitary stations on the hills near the west coast. Probably the best site will be found on some of the spurs of Kinabulu, such as that described by St. John on the west-north-west spur; where, at an elevation of some 5000 to 6000 feet, on a good site to which a road could easily be made, he found good water, and an average temperature of 75° at midday, 63° at sunset, and 56° at sunrise. At Bode Silam, also on the east coast, it is possible that a site may be found at an elevation of some 2000 feet, but this would probably prove much less satisfactory, not only on account of the smaller elevation, but also because, from the isolated nature of the hill,

there would probably be difficulties about road, water-supply, and shelter from the wind.

At present, in default of such sanitarium, the short sea-voyage from Borneo to Singapore and back has a most powerful recuperative effect in convalescence from sickness. The voyage to Hong Kong is not found so satisfactory in such cases, as the transition of climate is too rapid; and though the distant effects may be good, the immediate effect is to stir up any seeds of fever and other disease that may be latent in the system and cause an outburst of the disease.

CHAPTER V.

TRADE AND PRODUCTS.

THE island of Borneo and the surrounding seas are exceptionally rich in natural products, many of which are as yet hardly, if at all, collected or utilised. The main reason why so little advantage of these resources has been taken hitherto is that matters have been in such a disorganised and anarchical state that it was impossible to store up the slightest wealth without some one more powerful than the possessor coming and seizing it, by force of arms if need be. It was useless therefore, until quite lately, for any one to attempt to do more than provide for his immediate wants; and so much has this grown to be a habit, added to the natural laziness of the Malay character, that the bulk of the people simply have, even now, no thought for the morrow. A remarkable illustration of this is found in the undoubted fact that it has been known that Bajau boats having brought some "find" of a rather higher importance than usual to market, and bartered some of it for the only article to which they attach any value, rice, have afterwards thrown the greater part of the remainder into the sea, rather than be at the trouble of taking it about with them. It will thus be understood that the people of these parts have come to regard it as but a natural state of affairs that they should be surrounded by wild produce of a valuable character, which they have only to stretch out their arms to gather, and, in fact, as a sort of balance at their bankers, upon which they simply have to draw whenever the need arises.

SEA PRODUCE.

Bêche-de-mer; scientific name, *Holothuria*, or Sea Cucumber; Malay, *trepang;* Bajau, *bart.* These repulsive-looking echino-

derms occur in quantities all round the coast, and are collected principally by the Bajaus, or Sea Gypsies, who cure and dry them, and bring them to market, where they are bought by Chinese traders, and sent ultimately to China, where they are much appreciated, being used principally to make soup. They vary considerably in price. Some of them have no value at all, and go uncollected; others fetch as much as $25 a picul, but the usual price is from $10 to $15 per picul. Along the coast they are rather fully collected, but amongst the islands, and on the coast-line down to the south, there are immense quantities left undisturbed from year to year. The exports of this curious produce during the years 1887 and 1888 were valued at $7795 and $8766 respectively.

Keema is a large mollusc resembling an enormous cockle or clam. Their shells may occasionally be seen in museums in England, and are much used in France as vessels for Holy Water at the entrances to churches; these shells are sometimes found six feet in width, and the natives aver that they grow very much larger, and state that on the coast of Tawi-Tawi there is one as big "as a house." It may be mentioned, however, that fifteen feet broad for a Bajau house would be quite a respectable size. *Keema* is usually found on a coral bottom, and it requires the keen and practised eye of a Bajau to distinguish between them and the surrounding lumps of coral, &c.; they usually present the appearance of an indigo-blue streak, the partly opened mouth being all that is visible, the shell being too much covered by sea-weed, anemones, &c., to be seen; and when the Bajau distinguishes one from amongst the quantities of other creatures and colours with which the bottom abounds, he thrusts a three-pronged spear into the aperture, whereupon the two shells close with a firm grasp, which enables the fisherman to bring it to the top without further trouble. The price of *Keema* is usually so low that it is despised by the gatherers, though however low the price might be, $2 to $3 a day could always be earned by collecting it. During the war between France and China, the prices of *Keema* rose considerably, owing probably to its being more easily prepared for culinary purposes than *trepang*, and therefore more adapted for soldiers on the march. There are places on the coast where boat-loads can be got in a very few days, and its collection was being largely

expanded when the end of the war came, and prices showed a disposition to fall.

Agar-agar, an edible sea-weed, grows freely enough in many places at the bottom of the sea, and is to be had for the collecting.

Mother-of-pearl shell is the produce of a very large oyster, known locally as *tepai*. Beds of this oyster are found in the seas all the way from Borneo to Australia, more or less; they would seem to terminate, however, about Lat. 6, North. There is a tradition of a large bed being situated outside Balhalla, somewhere between the islands of Nunuyan and Taganac, and in confirmation of this report occasional single specimens have been obtained. A bed also exists, without much doubt, on the "René" shoal off Tambesan, but the mouth of Darvel Bay has to be crossed to the southwards before ground is reached where they are constantly found. Information apparently trustworthy has been received of an important bed extending from Port Elphinstone to some sixty miles to the southward, called the Ada Bank, so named after the wife of Mr. Pryer, the Resident of the East Coast. Shells from this bank are sent in occasionally, and some pearls are said to have been found. The price of shell is usually about $45 a picul. Exports hitherto in this article have principally been composed of a few shells that have from time to time found their way over from the Sooloo Islands to Sandakan.

Pearls.—These are found in the above-mentioned mother-of-pearl, or tepai, oysters. Hitherto but very few have been found on the coast of British North Borneo, and those which are offered for sale in the market have come principally from the islands of Tawi-Tawi, Skobong, Ubian, &c., in the Sooloo Archipelago. Pearls of very high price are not unfrequently to be bought in Sandakan. The largest one that has been seen was valued at $8000. The diving powers of the people who bring up these shells are something extraordinary, and are probably not to be exceeded anywhere in the world; without any stone or weight they turn over on the surface of the water and swim down headforemost to the bottom, collect shells, and bring them up, each one weighing six or seven catties. In this manner they will descend to an ascertained depth of twelve fathoms and claim to be able to go down much greater depths. In

waters much infested by sharks, a sort of plough-shaped trawl, here called "badjer," is used.

Seed-pearls.—These are found in a thin, flat, pinkish-shelled oyster, known locally as *selisiep*, which occurs usually in shallow water on the mud at the mouth of rivers. This oyster is somewhat peculiar in character; the water in which alone it can thrive must be slightly brackish, as it cannot live in entirely salt water, while, on the other hand, an admixture of too much fresh water kills it at once. There used to be large beds of it in Sandakan and Labuk Bays, but very heavy rains in the year 1879 so thoroughly destroyed the oysters, that they had not properly recovered by the end of 1885. On several occasions it has been said that the oyster was beginning to be found again, and that minute pearls were forming in them, but rains always came at the critical moment and destroyed them. In Maroap Bay, a certain amount of collecting has been in progress for the past few years, and there are places in Darvel Bay where these oysters are abundant; but other natural produce, more easily collected, is so plentiful in its neighbourhood, that they are never touched. Seed-pearl collecting is great fun. It is always necessary for several boats to rendezvous at the same time and place for the purpose of frightening away the crocodiles and sharks, and for the same reason as much shouting and splashing about as possible is indulged in. The consequence is that there are rarely less than from twenty to thirty persons in the water at one time, all diving, splashing, laughing, and shouting at once, and rarely bringing up less than three to four shells at a dive, whilst extra yells from all hands salute a rather larger find than usual. The mode of obtaining the pearls is by opening the oysters and throwing their contents into some vessel, and there leaving them to decompose, stirring them up daily during the process, until at last, the liquid putridity being poured off, the pearls are found at the bottom. Very few of them are large enough to be of any value individually, but they are sent to China, where they are pounded up and made into powder, and there swallowed by ladies who desire to improve their complexion; at least, such is the story. Another and rather larger kind of oyster, known as *beloong*, found in somewhat deeper water than *selisiep*, also always contains seed-pearls. Exports, 1887, $1092; 1888, $16,464.

Tortoise shell.—The name applied to this article of commerce is somewhat of a misnomer, as it is supplied by a turtle; these turtles are fairly common in our seas, and are usually captured by means of spearing as they lie asleep on the surface of the water. It is averred that the turtle-egg collectors, if they find a lay of eggs less than one hundred and thirty in number, return to that spot twelve nights afterwards, when the same turtle comes again, and, being secured, is always found to be of a good kind. (The ordinary turtle is not interfered with.) The usual price of tortoise shell is about $6 to $12 for the produce of one turtle, but occasionally single shells are valued at extraordinarily high prices. One secured by Panglima Ypel was said to have been sold for $500, and more recently it was reported that $2000 was asked for a single specimen brought to Sandakan. No people but Chinese would pay such prices for such an article.

Turtle eggs.—Some of the sandy shores of the islands about the east coast abound with turtle eggs, which are collected by boats which go in search of them, and quite a large trade is the result, baskets full being always exposed for sale during the season in the shops at Sandakan. The island of Bergoan is the one most favoured by the turtles, and the season is during the continuance of the southern monsoon, viz., from April to October.

Sharks' fins.—Sharks abound in these seas, and are caught chiefly by the Bajaus, in a variety of ways, sometimes by hook and line, sometimes in *keelongs* (fish-stakes, or fish weirs they would be better known as in England), and sometimes by spearing, but by none of these methods can the very largest be captured, and they sometimes are seen of immense size. A Bajau boat, however, rarely returns from a trip of any duration without bringing a bunch of tails and fins, usually cut off from fish four to seven feet in length. The quantity in the sea may be described as inexhaustible, and the larger the sea population grows, the more sharks' fins are likely to be brought to market. Borneo sharks are, to a certain extent, dangerous, but not so very much so; an occasional mother-of-pearl shell diver is carried off, but, otherwise, accidents happening to persons going into the sea are rarely heard of, not by any means so often as from crocodiles up the rivers.

A canoe has been seen to pass over the spot where, a few minutes before, the two back fins of a shark had been visible, and between which the canoe (a very small one) could almost have been placed lengthways. A crocodile of similar size (if such a thing were possible) would almost certainly have tried to upset it, or at any rate knock the man overboard. The trade in sharks' fins, like most of the other articles hitherto mentioned, is carried on exclusively with China. Prices range from $8 to $25 a picul, and exports were, in 1887, $6430; and in 1888, $5977.

Sponges.—These are frequently washed ashore all along the coast-line wherever much coral exists. One or two pretty fair specimens have been seen; but whether sponges of any real value could be obtained by systematic searching, or by a slight amount of culture, remains yet to be seen.

Edible oysters. — In some places these abound to such an extent that there are as many lying on the rocky shores as there are stones, and at first sight it is difficult to distinguish one from the other; boat-loads could be obtained without any trouble. They are very good eating, and quite innoxious, so long, that is, as the *rock* variety is procured. There is another kind found adhering in masses to the roots and branches of the mangrove trees, which ought to be carefully avoided, for, if eaten, this oyster occasionally produces an attack very much resembling colic, and even more dangerous. When dried, however, its harmful qualities are to some extent destroyed. It is expected that a certain amount of export business will in time be developed in both these kinds of oysters.

Fish. — Nowhere in the world, probably, is there such a quantity and variety of good eatable fish swarming in the seas as off the east coast of North Borneo. This is mainly owing to the wide extent of shallow seas (up to one hundred and fifty fathoms in depth) and to the numerous islands.

Various of these fish resemble cod, rock-cod, huge perch, whiting, herrings, &c.; *menungin* is like haddock; *pila-pila*, soles; *ikan-merah*, red gurnet; *ikan-parey* is a general term for all sorts of flat fish, skate, flounders, &c.; *ikan-tumbun* is nothing other than the sardine; *ikan-blannak*, mullet. A large silvery-scaled fish has the appearance of salmon, but there the resemblance ceases. A great variety of others have no synotypes in

our English waters, but are excellent eating. Several methods are employed in their capture: *keelong* (fish-stakes); hook and line; *serambau* (dip-net); nets; casting nets; spearing with and without torches, and *bubut* (a sort of trap sunk in the water), are the principal. Of these, *keelong* fishing is the favourite when it is intended to capture a quantity. The principle upon which the *keelong* is designed is that of the wire mouse-trap, from which, being once entered, it is impossible afterwards to escape. A fence or barrier extends from the shore to the required distance out at sea; the fish encountering this, skirt along it, and thus find their way through two outer chambers, till in time they arrive in the end compartment. When once the fish have gone into the first chamber there remains little chance of escape for them, the sides being curled inwards in a heart-shape at its entrance, so that though very easy to pass in by, it is a difficult matter to return; the compartment at the end is usually round, and about seven to nine feet across. The *keelong* is made of split bamboo, driven into the sand, and lashed together by split rattans, the total length of the split bamboo at the end of the *keelong* being usually from twelve to fifteen feet. Low tide is naturally the time the fish are captured; a canoe paddling up from the shore frightens as many as possible from the first and second chambers into the end one, the narrow entrance or doorway into which is then closed altogether for the time by men who descend into the water, and put through the catching operations, with some little assistance from above. A curious sight may be seen when all is ready by any one getting upon the slender scaffolding which surrounds and surmounts the end chamber, the water below being thick with fish of all sorts and sizes. The next proceeding is to lash a loose piece of *keelong*, or bamboo-matting blind or screen kept for the purpose, to the inside of the chamber (most of these operations, it will be understood, being conducted under water), and being unfolded gradually, the fish are driven into a central fold of it till there is almost a solid heap of them. A basket is then let down from the scaffolding on top, and the fish are simply bailed out by the basketful and thrown into the canoe alongside. Many of the fish manage to get by or under the loose piece of *keelong* as it is being folded around them, and this process has to be repeated three or even four times before

all are taken, and even then there are frequently one or two so large that they cannot be got with the basket, and have to be speared. From three to five piculs of fish is not an uncommon take from one *keelong* a day; and four *keelongs* have been known to yield nearly thirty piculs a day between them for a week together.

There is an absence of mental strain or physical exertion in working a *keelong*, which much commends it to the Malay character, for as soon as the fish are caught they are taken to market and sold in one lot to the stall-keepers, and there remains nothing else to be done by the fishermen during the rest of the day.

This industry is capable of being indefinitely increased. If the population were larger, and more pressed for means of subsistence, the fishermen would make larger and deeper *keelongs*, and would no doubt catch many more fish, and a large export trade in salted fish would soon be inaugurated. In the south of Borneo and in Java there is a large inland population, salt fish being one of their staple articles of consumption; and their own seas being unable to supply all they want, they would come to North Borneo for the balance.

Keelongs are a sure method for capturing crocodiles; should one appear in the neighbourhood of a *keelong*, it is certain to be found inside it during the course of the next day or two. No matter how large they happen to be, they but very rarely succeed in forcing their way through the fencing, as the bamboo is very tough and yielding, and, owing to its being partly curled round, the creature cannot exert its full strength. When once caught, they are easily despatched by a rifle shot through the head, fired from the scaffolding above. The next most important method of catching fish in any quantity is by seining. This mode can scarcely be described as successful hitherto, the takes by its means not affording an adequate return for the capital invested in the seine and the labour involved. Seining has been principally practised by Chinese fishermen from Hong Kong, and there is no charge to be brought against them for lack of energy; but it has been almost painful to notice the disappointing results brought by them to market, after a hard day's toil with expensive apparatus, as compared with the boat-loads of fish brought in by Sooloo men, who have simply bailed

them out of their *keelongs*, the construction of which costs but little money. The Chinese, however, are very loth to adopt new ideas, and sooner than practise what is clearly the best mode of obtaining a good catch in these waters, they give up the whole thing in disgust and return to Hong Kong. Far too many young fish are captured in the seine, a matter which may require legislation in the future.

All the other methods by which fish are caught may be described as hand-to-mouth ones, or, at all events, suitable for the supply of the local market only. Hook-and-line fishing is, perhaps, the principal. When, owing to want of rain, the water is very clear, the fish avoid the *keelongs*, and the supply in the market falls short; a canoe with two men lying inside the harbour can always capture from sixty to eighty catties of fish in a few hours, for which, being in request, they can easily obtain $3 or $4 in the market. *Serambau*, or dip-net, fishing sometimes results in large takes, but recourse to it is only had in the off season; the dip-net is usually over twenty feet in width, and is managed by a man sitting in an elevated position, who, when he sees a shoal of fish passing over the net, lifts it and captures them. The fish thus caught are nearly always mullet; eighty catties a day is by no means an unusual take.

The casting-net is usually employed as a means for providing fish for single households. The correct way of handling it is a small art soon acquired, and it affords good amusement when fishing for shrimps and *ikan tumbun* (sardines). These latter fish are very abundant in the Omaddal district, shoals of enormous size being always visible. The spearing of fish is practised from boats when opportunities offer, large skate and other flat fish, which have a habit of sleeping on the surface, being frequently taken by this means; and at night a bright light, either carried by hand or in a canoe, attracts fish, which are then easily speared, but no great quantity is taken in this way. Up to the present time the export of salt fish has been very small, the up-country demand being large enough to take all that is salted; but with an increased population and cheaper labour, a very large and important business may be expected.

FOREST PRODUCE.

Timber.—The enormous quantity of virgin forest in the country affords an unlimited supply of the best woods for every purpose. Very full accounts of the woods were published by the Timber Sub-Committee for the Colonial Exhibition, and also by Mr. A. Cook at the Government Printing Office, Sandakan; the latter is subjoined in full.

The following report by Mr. A. Cook gives a fair idea of the timber resources of British North Borneo as at present known. He gives the prices at which native or Chinese labourers will bring timber squared and round alongside a vessel. The following are the figures at which a local timber merchant was ready to supply timber alongside vessels. The difference, of course, arises from the fact that the merchant has to allow for his profits, &c.

Price per ton of fifty cubic feet of British North Borneo woods, as supplied by the undersigned free alongside any vessel in Sandakan Bay.

	$	c.
Billian in roughly-hewn squares . . .	20	0
Ballow ,, ,, . . .	17	50
Miraboo ,, ,, . . .	17	50
Kumpass ,, ,, . . .	15	0
Greeting ,, ,, . . .	15	0
Russock ,, ,, . . .	15	0
Camphor ,, ,, . . .	15	0
Serayah ,, ,, . . .	12	50
Kruen ,, ,, . . .	12	50
Gagil ,, ,, . . .	12	50
Billian sawn into squares, flitches and planks .	40	0
Ballow ,, ,, ,, ,, .	35	0
Miraboo ,, ,, ,, ,, .	35	0
Kumpass ,, ,, ,, ,, .	35	0
Greeting ,, ,, ,, ,, .	30	0
Russock ,, ,, ,, ,, .	30	0
Camphor ,, ,, ,, ,, .	30	0
Serayah ,, ,, ,, ,, .	18	0
Kruen ,, ,, ,, ,, .	18	0
Gagil ,, ,, ,, ,, .	18	0
Penago sawn to the thickness only . . .	25	0

(*Signed*) JAMES MCLEAN,
Sandakan,
British North Borneo.

SANDAKAN,
25*th February*, 1886.

The Colonial Secretary.

SANDAKAN,
14th November, 1885.

SIR,—As requested, I beg to make the following remarks on the timber of North Borneo. There can be but one opinion as to the future trade in timber in North Borneo. The supply is practically inexhaustible, and can be supplied at such a rate as to warrant a profitable trade with any part of the world.

The 'British North Borneo Herald' of 1st November, 1884, gives a descriptive list of the woods, and I will continue the remarks as given in the 'Herald' above quoted.

I. Billian. When newly cut, this timber is of a dark sand colour; about 2 inches of the outside of the tree is worthless; very hard and durable, used for all purposes where strength and durability are required.

The best shingle wood; considered the most valuable of all timber, very large, plentiful in North Borneo; ant-proof; sinks, &c.

Logs are procurable up to 2′ 3″ and 2′ 6″ square, and say from 30 to 40 feet; but being a heavy wood large logs are very unwieldy; supply considered very abundant; is being exported by ship-loads. I cannot give the weight per cubic foot, but use the word "*sinks*" or "*floats*." In rafting it is important to know this.

II. Russock (banar). Dark sand colour, which darkens with age, heavy, rough-grained, durable; stands exposure; a valuable wood for general purposes, posts and beams for houses, wharves, piles, planks; withstands insects well; large, plentiful; sinks.

Logs are procurable up to 2 feet square, 40 feet long. It is plentiful all over North Borneo; a smaller kind of "Russock," more properly named Salangan-batu, is very common in Sandakan districts up to 18″ in diameter, length up to 50 feet; same description applies.

III. Compass. A heavy, hard, reddish, coarse-grained wood, not unlike Mirabou, but distinguished from it by its coarseness and a curious cross-grain; used for beams, posts, &c.; large, plentiful; sinks.

IV. Greeting. Outside sand colour, inside blackish stained, long grain; very durable in and out of water; withstands insects well; used for wharves, beams, general purposes; grows on the inner edge of swamps and by the sea-side; size about 2½ feet diameter; long, plentiful; sinks.

This wood is not now so plentiful in Sandakan Bay, although 50 or 100 logs are always procurable when required. Greeting is a very good imitation of black oak, and might take the place of walnut. It would do well for furniture. In a new country it is the first wood to disappear.

V. Mirabou. A heavy, dark yellow-coloured wood, becomes darker with age, fine regular grained, very tough and durable, valued as furniture wood, takes a fine polish; large, plentiful; sinks. Logs are procurable 2½ feet diameter, 30 feet long; although considered plentiful in some parts of Borneo, I have not seen much in Sandakan Bay.

VI. Palawan. Fresh-coloured, fine grain, hard and durable, splits easily; good for posts for houses, beams, piles, shingles; easily worked; plentiful.

VII. Camphor. Bastard Camphor, sand coloured, strong grain; very durable, much used for house-building, planks, &c.; large, plentiful, easily

worked. The tree also produces Camphor oil ; floats. This wood is plentiful in the island called Pulo Bai in Sandakan Bay, and other parts of Borneo. It abounds in Padas district.

VIII. Krewing. Oil-giving tree, but does not withstand insects well ; useful for common planks, &c. ; plentiful, easily worked ; floats.

In making the statement that this wood does not withstand insects, I referred more particularly to *water insects*, teredo, &c. ; for planks and general purposes, Krewing is a very useful wood, and very plentiful all over Borneo ; logs as large as 3 feet square, 50 feet long, are obtainable.

IX. Rungas. Dark red with black stain. Valued as a furniture wood, impregnable to ants, &c. ; large ; about 2 inches of the outside of the tree is of a light colour and worthless ; plentiful ; floats.

There are two kinds of Rungas, one with the black stain, and one without, both are alike good for furniture. The wood is not so plentiful round Sandakan Bay, although 20 or 30 logs up to 18" diameter are always obtainable.

X. Sirayah (*Red wood*). Much used for planks, deals, and general purposes ; light and easily worked ; very large and plentiful ; floats. Logs 5 feet diameter, 40 feet long, are obtainable. The wood is not readily attacked by insects, and is very durable as planks for houses, furniture, &c. The North Borneo Sirayah or Cedar is much richer in colour compared with that obtained in Singapore, and is consequently in demand for the Australian market as a *furniture wood*, especially for railway carriages ; it takes a beautiful polish ; can be supplied in ship-loads.

There is also a *white* Sirayah equal to the red, but without the colour ; a very good substitute for fir or pine.

XI. Penagah. Crooked, dark straw-colour with reddish veins, tough and durable for ships' ribs, stern-posts, beams, &c. ; long and plentiful on some parts of the coast ; grows by the sea-side. The tree bears a fruit or nut from which is extracted a valuable oil. This wood is ant-proof ; floats ; procurable up to 2 feet in width, though the more common size is 15 or 18-inch planks. There are one or two other woods to be had in quantity, which I think should not be overlooked. These are :

XII. Gagil. White, strong-grained, durable ; much used for ships' planks and general purposes ; large and plentiful, easily worked ; floats. This is a favourite wood with the Chinese, and as it is plentiful it may be considered as one of the export woods. Logs 3 feet diameter and 40 feet long are obtainable.

XIII. Urat Mata. Dirty red, strong-grained wood. Recommended for shipbuilding, masts and planks ; durable ; large, not very plentiful ; sinks ; insects do not touch this wood. Logs 3 feet diameter, 40 feet long, are obtainable. Malays prefer this wood for bottom blands for their boats.

XIV. Balow. Brown when seasoned, heavy, hard, fine grain, durable, easily worked ; used for beams, planks, and heavy work ; plentiful, large ; sinks. Logs up to 2 feet diameter, 30 feet long, are obtainable.

XV. Epel. Same description as Palawan, but larger ; not plentiful ; sinks.

XVI. Chindana. White, roof and buttress valued for their resemblance to Sandal wood, used for same purpose. The trunk of the tree makes good light planks, but not durable ; plentiful, large, or about 18 inches diameter ; floats. This wood lasts well if kept dry, and as it has an agreeable scent, fine

grain, and easily worked, I know of no more suitable wood for the inside parts of all kinds of box furniture.

XVII. Majow. Reddish coarse grain, strong and light, does not stand weather, general purposes ; very large, plentiful, easily worked ; floats. This wood is much used for planks for houses. Logs 4 feet diameter, 30 feet long, are obtainable.

Every timber-consuming country (likely to deal with this country) should keep us advised of the following particulars :—

(1.) The qualities which woods should possess to suit the trade.

(2.) For what purpose the woods are required.

(3.) The prevailing likes and dislikes of the trade.

(4.) Probable demand for the different kinds.

(5.) The trade measurement and prices obtainable.

Meantime we know very little for what purposes the woods are required. It is perhaps desirable to have a list of Borneo woods showing for what purpose they are most suitable. I beg to submit such a list herewith, the woods being placed in order of quality or suitability.

The following are suitable for furniture and fine wood work :—

1. Penagah, any solid work, or veneering.
2. Mirabou do. do. heavy.
3. Rungas do. do.
4. Selangan Merah, or Sirayah (Red), any solid work, such as railway-carriages, ships' fittings, cabins, tables, boxes, common cabinets, &c.
5. Urat Mata, any solid work, such as railway-carriages, ships' fittings, cabins, tables, boxes, common cabinets, &c.
6. Greeting. Stronger and heavier than Sirayah. (Vide No. IV.)

The following are suitable for posts and beams for houses, wharves, bridges, railway-sleepers, telegraph poles, &c., and generally where strength and durability are required :—

1. Billian.
2. Russak.
3. Tapang or Mangaris.
4. Palawan or Epel.
5. Greeting.
6. Balow.
7. Camphor.
8. Daroo.
9. Urat Mata. [bearers).
10. Bintangor (especially for roofing

The following are suitable for planking and roofing :—

1. Camphor wood, stands weather well.
2. Sirayah (or Selangan) Merah.
3. Ditto Puteh.
4. Krewing.
5. Gagil.
6. Majow.

Sirayah Merah is perhaps too good for flooring, &c., but being plentiful I place it with these others as quite capable of taking the place of pine for such purpose.

7. Madang (Kuning and Sesik).

There are many other good woods which might be named, but I wish to name only those which can be supplied in quantity.

I am glad to notice that the Court is inclined to authorise that a few logs be sent home, and I would strongly recommend that two or three large logs of each of these woods I have mentioned be sent to London : smaller samples of the same to be sent at the same time. This is very necessary, for I believe that up to the present time the woods of British North Borneo have not been properly represented by the few samples sent home, many of which, to my

knowledge, were cut from young trees, and in some cases even part of a branch.

With regard to ebony, I do not think that the real ebony of India has been found in British North Borneo, but there is a kind of ebony called Arang, a large tree about 2 feet diameter: the centre is like ebony and is used as such; preferred to ebony for veneering and inlaying purposes.

It is not plentiful, although several logs can generally be found. The sizes of ebony will run to 9 inches diameter and 25 feet long, the wood is tough and easily split and worked.

With regard to facilities of access, &c., the wood is cut (and squared if necessary) by Malays and Chinese, principally the former, and hauled by buffaloes or manual means to the river, where it is rafted to Sandakan Bay, into which run some seventeen timber-supplying rivers: on the east coast there are also Labuk Bay, Darvel Bay, and Sebuku Bay, and on the west coast, Marudu Bay, Kudat Harbour, Ambong Bay, Gaya Bay, and Padas Bay, all of which afford excellent anchorage and facilities for shipping timber, but up to the present time Sandakan is the only port of export in quantity. The cost is from 10 to 20 cents per cubic foot alongside; this is for ordinary kinds; fine furniture wood would cost a little more. This is for squared timber. Round timber in logs 2 to 5 feet diameter costs from 3 to 5 cents per cubic foot.

The shipping should be done by the crew, as it is sometimes difficult to get coolies used to the work; shipping should not cost more than 2 or 3 cents a foot.

The present export duty is 50 cents per ton of 50 cubic feet: this is supposed to be on timber taken from private lands.

Special Permits are given to cut timber on Crown Lands, cost about 25 cents per acre per annum, with an extra export duty of 50 cents per ton.

Every timber-carrying vessel should have two bow ports capable of taking in logs up to 4 feet diameter, and should also have a steam winch or other powerful tackle.

A sailing vessel of say 700 or 800 tons could bring from England a cargo of coals for Singapore; 100 tons to ballast her to Sandakan, where she could load timber for London or elsewhere.

In reading any description or report on British North Borneo woods it should be remembered that almost the whole country is one gigantic forest, and few people, if any, have any accurate knowledge of the quantity and different kinds of wood.

It is quite probable therefore that woods which I have described as "not plentiful" (which remark applies only to the coast and bays of British North Borneo) are plentiful in the interior; this may be taken as true as regards Camphor wood and Mirabou.

I am of opinion it would be to the interests of the timber trade if some system of procuring samples of wood from the interior were adopted, and I would suggest that all inland native chiefs be instructed to take every opportunity of procuring samples of the different kinds of wood, as well as all other jungle produce or mineral in their district.

Your obedient Servant,

ALEX. COOK,

Treasurer-General.

In timber a large trade is now being done. The British Borneo Trading and Planting Company and the China Borneo Company have erected extensive steam saw mills in Sandakan Bay, and carry on a large export in rough and sawn timber, which is sent to China, Singapore, and England. Steps are also being taken to open a trade with the Australian Colonies, where samples of British North Borneo timber have been exhibited, and obtained a gold medal at the Adelaide Jubilee Exhibition of 1887.

Rattans are frequently found as low down even as amongst the nebong palms. The quantity collected is immense, and seems yearly to grow larger; the enormous stretches of flat land on the banks of the Kina Batangan and Labuk Rivers and their numerous tributaries being the principal source of supply. The rattan is the stem of a creeping prickly palm scientifically known as a Calamus; several stems of great length sprout from one stool.

Collecting is rarely conducted at a distance greater than half a mile from the banks of a river, and there are therefore enormous tracts in which they are entirely untouched. The rotan saga is the ordinary rattan of commerce, but there are several others of more or less value, known to the natives as poodloos, toongal, lissang, lugsekan, and others. The rotan poodloos has a girth less than one-fourth that of the rotan saga. Its chief characteristic is that it grows rather on hillsides than in swamps. It is frequently made into blinds and mats. Other rattans there are which are utilised as umbrella-handles, walking-sticks, &c.

Birds' Nests are made by a small swiftlet of the genus Callocalia, which selects caves, the larger and darker the better, for building in. These sort of caves usually occurring in limestone rocks, it is accordingly in this formation that all the most valuable caves are found. The nests are of two classes, white (putch), and inferior or black (manas and itam). Collecting takes place twice, and in some cases three times, a year.

The caves in which the swiftlets build are usually of immense size, and from fifty to several hundred feet high inside. Some of them are pitch dark, in others there is more or less twilight. In some of them, notably the Segaloong Caves near Timbong Mata, the collecting is done by night instead of by day, on account of its being cooler.

The collectors have to ascend the wet and slippery sides of the caves to the roof, and there to move about with the aid of rattan slings and ladders, like flies on the ceiling, in the dim twilight or utter darkness, at a height frequently of several hundred feet from the ground. Even amongst the natives really good collectors are rare, but, at the same time, fatal accidents do not often occur; there have been none for the last two seasons.

A good many mistakes and delusions have long existed with regard to these birds' nests, and the caves in which they are found. It is not true, for instance, that the birds, growing more exhausted as the nests they successively make are taken away, mix blood with the last ones; or that the caves are necessarily situated on the seashore; or that the material of which the nests are made is any sort of seaweed or other similar substance; or that the first-made nests are of good quality, the second inferior, and the third mixed with moss and hay; or, again, that white nest left uncollected turns into black nest. These and other errors, many of them originated and perpetuated even by scientific people, have been lately refuted in the pages of the 'Zoologist.'

The principal caves from which nests are obtained are Gomanton, Madai, Sedaloong, Batu Timbong, Baturang, Sapud Batu, Taparong, Boad Chukai, Karoak, Melakop, Penungah, and others. The first alone yields from $20,000 to $25,000 worth per annum. Other caves are said to exist which, if worked, would yield even more, viz., Bootong, or Garyangya, Narkeu, Bras Dammit, Phang, and another said to be fifteen days' journey through the forest from the upper Segama River.

The price varies from $300 to $1600 per picul for white nest, and from $60 to $150 per picul for black and manas.

Guano.—In the Gomanton birds'-nest cave there is a large deposit of guano, which on analysis was said to show high fertilising powers.

Gutta-percha is the hardened sap or juice of several forest trees; *Dichopsis gutta* being the scientific name of the one yielding gutta of the best quality. It grows chiefly on poor sandy soil, and to obtain the sap the tree has to be felled; rings are then chiselled round it at distances of 15 inches or so apart, from which the gutta is scraped. From 4 to 6 catties is the usual product of one tree.

The experiment of tapping the trees as they stand has been tried, but the amount collected was very small. The greater part of the full-grown trees of the species *Dichopsis gutta* have been felled, but there are a great many saplings growing up; these, however, will probably take some twenty years to mature. There are four kinds of gutta in Borneo; but Gutta Kalapei, or Targuk, as it is called by the natives, the produce of *Dichopsis gutta*, is the best and most expensive, and usually fetches about $70 per picul; two other sorts next in value either do not exist in North Borneo or the natives have not yet learnt how to work; while the fourth, Gutta Semalam, is beginning to come out in increasing quantities; it is, however, only valued at about $20 per picul.

The value of gutta exported in the year 1887 was $26,902, and in 1888 $28,929.

India-rubber is the sap of a creeper of the genus Willoughbeia, which attains some three or four inches in diameter. It occurs very generally all over the country, but is not particularly plentiful in any one district that I am aware of. It grows under natural forest shade, and requires only about four years to come to maturity. From the almost complete absence of expense attending its cultivation, it might well receive more systematic attention both from Europeans and natives; the latter have already made some progress in this direction. The price usually obtained by collectors is from $30 to $40 per picul.

Beeswax.—The supply of beeswax in the country is enormous; the quantity collected, however, is but the smallest fraction of what falls to the ground uncollected and is lost. Over the whole millions of acres of forest it occurs more or less everywhere. The bees usually build in a very tall tree known as Mengalis, and on the banks of the Kina Batangan as many as forty or fifty nests are to be seen in single trees. Even of this but very little is collected, and it is simply impossible to estimate the value of the wax that is lost yearly.

Bees'-nest collecting is difficult and dangerous work, and is best done by adepts at birds'-nest gathering. The trunks of the Mengalis trees are up to 8 feet in diameter, and the branches are 80 feet and more from the ground. Night is the time when the nests are taken; the collector carries up with him some smouldering weeds, probably of some kind of *artemesia*,

which he dangles below the nest: the smoke seems to have a stupefying effect upon the bees, and the nest is then taken and lowered to the ground.

The mode adopted for ascending the trees is somewhat curious; a long sapling is attached to the tree by three or four pegs or rivet; a second sapling is then placed above the first one, and its bottom end is secured to the two highest pegs already attached; and as each subsequent peg is fastened, the man ascends to it and fastens another one above, and so on, up to the branches, each new sapling always being secured by two pegs before he trusts his weight to it.

Accidents are rare, but owing to the trouble involved, bees'-nest collecting is not very popular; the people never trouble to exert themselves unless they are very much in want of something; but however much the population may increase, it will always have at its command a means of supplying its superfluous wants, and the larger it becomes, the greater the export of beeswax is likely to be. In the old days, while there was still a fairly large population on the Kina Batangan, before small-pox carried away nearly all that was left of it, 600 piculs a year passed through one Chinaman's shop.

Dammar is a resin or gum which exudes from various forest trees; it is generally found in the ground below them, but may occasionally be seen in huge masses, not unlike icicles, hanging from their sides. A single piece weighing five piculs has been found on one tree, but necessarily these large masses get broken in collecting. The value of the dammar found in the Sandakan district is rarely over $2 per picul. Further to the north, much better sorts are found, the dammar mata kutching (or catseye) of Palawan being worth $10 a picul, while in Marudu Bay gum copal occurs.

Barus Camphor is the product of a fine forest tree; it is very unlike what is known as camphor in England, and is much more expensive, a pound weight of it being worth as much as $20 to $30. It is principally used by the Chinese for embalming, and occasionally by Borneo natives for the same purpose.

The tree occurs more or less plentifully throughout all the forests, but it is only at a certain stage of its growth that the camphor can be obtained; this ripe stage, however, lasts, the natives say, for about five years. The quantity to be

obtained from one tree varies considerably, from 1 or 2 catties to as much as 20 or 25. The natives have a saying, that if a man obtains over $600 worth from one tree, he will die within the year!

To procure the camphor, the tree has to be felled entirely and then split up. Looking for camphor trees suits the Malay mind exactly, as in fact does gutta-percha hunting, and many similar proceedings; they idle about for days together, always in the hope that they are just going to make a rich find, but it is not very often that a party of camphor hunters come across a tree in the requisite stage of ripeness. It would appear that the tree has to be of very old age, probably one hundred-and-fifty years or more, before the camphor in it develops; until then it seems to exist in a state of oil.

There are three allied species of this tree, in which a very similar oil is found; from one of these the well-known and valuable cayu putih oil is obtained (barbarously changed to the cadjeput oil of chemists' shops in England); Krewing, from which a very similar oil is taken, and Durum, the true barus camphor tree, the oil from which also has a value, but nothing as compared with what it is worth in its concentrated state. It is only in Durum trees that the oil seems to concentrate in this manner.

The natives have many tales and fancies about camphor collecting; the way in which, after wandering through distant forests sometimes for weeks without success, they find a ripe tree almost within sight of their houses; or after having had a tree under observation for months, they find suddenly that it seems to have been ripe for a long time; or more particularly, when having, as they believe, established the fact of a tree being in the ripe stage, they have felled it and even obtained some camphor from it, the yield suddenly ceases. These and like occurrences have invested camphor seeking in particular with more superstitions than any other pursuit, and that is saying a good deal. The Sundyaks, the chief collectors, are guided in most of their operations in life by good and bad birds, and when going camphor hunting these omens are more carefully looked for than usual. Amongst others, perhaps the most curious idea is, that implicit silence must be maintained during the whole of the search, or no proper trees will be found, and any one speaking

to a camphor collecting party is liable to be fined on the spot. On one occasion a party of men on the bank of the Kina Batangan being hailed as to the distance off of the next village, gave the unexpected reply, "Fine you two small cannon for speaking to us!"

Meinyah Tungkawang.—A vegetable fat or tallow which is extracted from the fruit or seed of two or more forest trees. These trees abound more or less throughout the territory. It is asserted that in the proper season tons of the fruit might be collected floating on the surface of some of the tributaries of the Kina Batangan, and it is also said to be very plentiful in Provence Dent. As yet, however, the population, having so much other natural produce ready to their hands, which can be obtained with a minimum of exertion, have not troubled themselves about Meinyah Tungkawang.

Swamp Produce.

The greater part of the coast is lined to a considerable depth with enormous mangrove and nipa swamps. One alone of these swamps, extending eastwards from Sandakan Bay for sixty or seventy miles, with an average depth of ten miles or so, contains some four hundred thousand acres. This great acreage of apparently useless swamp is, however, likely to be a source of great wealth in the future. These swamps are everywhere traversable by numerous lagoons, backwaters, and creeks.

Mangrove grows on what is really shallow sea, and mangrove swamps should not be, and in fact frequently are not, marked on the map as other than sea. Mangrove wood is much used as fuel, and even after paying a small freight to Hong Kong, is bought there by some people in preference to coal.

Mangrove Bark is used as a dye and also for tanning purposes. Analysis has shown that it contains 41·398 % of tannic acid.

It is a well-known fact that by doing away with mangrove swamps much sickness is caused; but, in addition to the distance they are from any of our towns, their size is such that they will

meet the largest requirements ever likely to be made upon them without showing any perceptible diminution.

Nipa Palms.—Above the mangrove and where the water begins to be brackish, nipa palms commence, and large swamps of them intervene between the mangroves and the true land. Those nearer the sea are comparatively small and stunted; but where the water is more fresh than salt, the leaves attain a height of twenty feet and upwards, presenting a very handsome appearance, resembling the single fronds of a huge fern. This graceful palm is utilised in various ways, the principal being in the manufacture of thatching for house-roofs, in Borneo called attaps. This manufacture is quite an industry of itself, and affords employment to many natives, chiefly women, the men simply bringing cargoes of the fronds to the women, to be stitched with split rattans and made up.

Attap roofs are the best adapted for the Borneo climate, for, whilst the winds are never strong enough to blow them away, they afford the coolest protection against the sun, of any kind of roofing known. Attaps are being shipped to China, and if they gain in favour, there are the possibilities of a very large trade being established.

Kadjan mats, also manufactured out of nipa leaves, are indispensable for travelling purposes; packed up in the smallest compass when not required, each one is capable of affording sufficient cover at night for two or three people, either in boat or forest journeys. They also almost exclusively form the material for side walls and divisions within houses.

The young nipa leaf, unfolded and dried, forms the favourite covering for cigarettes, in preference to paper. The fruit is eaten, and indeed on one occasion in the old days, when Sandakan ran out of rice, the people had nothing else to live upon for a whole month. In taste and appearance it is something like cocoanut, but much tougher. In Sooloo, salt, and somewhat strange to say, sugar also, is made from the burnt stem of this palm; considerable quantities of this salt are imported into Sandakan, where the people have not yet cared to make it for themselves.

Nebong Palms.—Above the nipa, and where the water is almost fresh, the nebong grows. It is plentiful in low and somewhat swampy places along the coast, and is generally a

sign of the presence of fresh water in the vicinity. It attains a height of 40 to 50 feet. The unsplit round trunks are used for the posts of Malay houses, while when split up they are employed for flooring, rafters, &c. As a rule, the posts do not last more than three or four years, but as the wood is plentiful, and requires no preliminary preparation beyond cutting to the proper lengths, this disadvantage is the less felt. The head, or cabbage, formed of the unexpanded leaves, is a delicious vegetable.

Its utility to the natives will be understood from the fact that nearly all the houses in the city of Brunei, with a population reckoned at 20,000, as well as the rough bridges, or "jumbatans," connecting them, are built of this palm over the water of the river of that name. This tree will be found most useful by tobacco-planters for all temporary buildings, such as drying-houses, coolie-lines, and so forth, and some have been already exported to Sulu for these purposes.

TRADE RETURNS.

EXPORTS AND IMPORTS, 1883 TO 1888.

	1883.	1884.	1885.	1886.	1887.	1888.
	$	$	$	$	$	$
Imports . . .	*a*429,919	*b*377,885	648,318	849,115	958,643	1,261,998
Exports . . .	*a*159,127	*b*184,173	401,641	524,724	535,267	525,876

a. For Sandakan only.

REGISTER OF EXPORTS FROM THE BRITISH NORTH BORNEO PORTS, DURING THE SIX MONTHS ENDING 30TH JUNE, 1889.

ARTICLES	Total for six months ending 30th June, 1889.			Total for six months ending 30th June, 1888.			Increase.	Decrease.
	Pls.	Cts.	Value.	Pls.	Cts.	Value.		
			$ c.			$ c.	$ c.	$ c.
Beeswax	40	61	1,325 44	13	54	612 ..	713 44	.. ..
Birds' nests	185	94 8/16	35,193 35	143	49	25,841 65	9,351 70	.. .
Blachan	2,972	..	4,743 ..	..	..	5,286 ..	.. ..	543 ..
Camphor	1	91 1/16	6,249 71	2	28 2/16	7,085 03	.. ..	835 32
Cocoanuts and fruits	..	..	846 79	..	..	1,785 70	.. ..	938 91
Cocoanut oil	..	..	.. ..	..	..	9 ..	.. ..	9 ..
Coffee	..	..	203 90	..	..	382 76	.. ..	178 86
Dammar	3,444	17	2,421 65	7,731	..	4,497 92	.. ..	2,076 27
Fish dried	16	5	176 90	12	..	134 ..	42 90	.. ..
Gutta-percha	223	58	10,588 20	341	87	13,017 16	.. ..	2,428 96
Hide	87	53	2,032 74	..	..	1,847 ..	185 74	.. ..
Horn	..	..	47 50	..	..	560 ..	.. ..	512 50
India-rubber	353	37 1/2	10,362 34	263	12	10,152 76	209 58	.. ..
Ivory	..	..	60 ..	..	..	50 ..	10 00	.. ..
Livestock	..	..	1,742 40	..	..	1,014 80	727 60	.. .
Old jars	..	..	141 50	..	..	165 ..	.. ..	23 50
Opium	..	..	600 ..	..	..	482 ..	118 ..	.. ..
Pepper	568	..	8,429 ..	..	..	.. ..	8,429 ..	.. ..
Rattans	39,357	bls.	52,169 60	41,011	bls.	32,491 24	19,678 36	.. ..
Rice and paddy	..	..	2,927 08	..	..	5,835 26	.. ..	2,908 18
Sago flour	3,555	40	7,250 72	7,978	31	17,018 58	.. ..	9,767 86
Ditto raw	9,463	42	8,517 14	9,666	..	8,868 80	.. ..	351 66
Seed-pearls	1	96 1/2	18,627 43	..	66	10,736 16	7,891 27	.. ..
Sesik tingiling	..	..	589 70	..	..	696 12	.. ..	106 42
Sharks' fins	126	64	2,975 37	129	5	2,680 90	294 47	.. ..
Shells mixed	29	81	353 38	8	69	194 60	158 78	.. ..
Sugar	..	..	120 ..	..	..	.. ..	120 ..	.. ..
Sundries	..	..	27,677 03	..	..	30,700 84	.. ..	3,023 81
Timber	..	..	21,715 84	..	..	20,460 48	1,255 36	.. ..
Tobacco	638	bale	95,145 42	..	..	17,228 10	77,917 32	.. ..
Tortoise shell	9	99	4,060 95	9	7/16	2,524 80	1,536 15	.. ..
Treasure	..	..	45,068 49	..	..	33,686 21	11,382 28	.. ..
Trepang	136	21	1,326 05	2	6	2,241 90	.. ..	915 85
	..	..	$373,688 62	..	..	$258,286 77	$140,021 95	$24,620 10

Balance of Increase over Decrease . . . $115,401 85 or 44 %

REGISTER OF IMPORTS AT THE BRITISH NORTH BORNEO PORTS, DURING THE SIX MONTHS ENDING 30TH JUNE, 1889.

ARTICLES.	Total for six months ending 30th June, 1889.		Total for six months ending 30th June, 1888.		Increase.		Decrease.	
	$	cts.	$	cts.	$	cts.	$	cts.
Arms	1,668	50	479	..	1,209	50	..	..
Brassware	8,293	62	7,747	08	546	54	..	..
Brick	1,151	25	..	..	1,151	25	..	..
Building materials	8,820	40	4,119	90	4,700	50	..	..
Cloth	105,056	93	93,439	10	11,617	83	..	..
Coal	3,285	50	1,260	..	2,025	50	..	..
Dammar	5,352	05	2,264	50	3,087	55	..	..
Dried fish	4,164	87	2,783	13	1,381	74	..	..
Earthenware	10,441	45	4,678	95	5,762	50	..	..
Furniture	13,570	35	2,407	86	11,162	49	..	..
Gunpowder	58	20	84	..	..	..	25	80
Ironware	15,885	27	6,761	91	9,123	36	..	..
Kerosine oil	10,762	93	8,817	59	1,945	34	..	..
Livestock	4,508	70	1,204	85	3,303	85	..	..
Machinery	50,927	..	80,599	..	..	..	29,672	..
Matches	1,605	74	1,095	9	509	83	..	..
Oils	9,820	40	6,453	24	3,367	16	..	..
Old jars	60	..	..	..	60	..	..	..
Opium	17,770	50	12,579	..	5,121	50	..	..
Paddy	359	80	357	90	1	90	..	..
Provisions	80,222	43	37,095	36	43,127	07	..	..
Rattans	4,805	..	819	20	3,985	80	..	..
Rice	99,577	08	78,812	32	20,764	76	..	..
Salt	3,163	92	953	26	2,210	66	..	..
Spirits	24,088	09	10,078	40	14,009	69	..	..
Stationery	1,893	22	631	60	1,261	62	..	..
Sugar	12,024	53	8,430	64	3,593	89	..	..
Sundries	107,092	71	50,199	72	56,892	99	..	..
Timber	87	..	150	..	..	..	63	..
Tobacco	18,558	52	13,770	25	4,788	27	..	..
Treasure	194,708	87	146,942	..	47,766	87	..	..
Vegetables	6,895	95	2,074	45	4,821	50	..	..
Wax	2,500	10	..	..	2,500	10	..	..
	$829,130	88	$587,090	12	$271,801	56	$29,760	80

Balance of Increase over Decrease . . $242,040 76 or 41 %

J. W. WILSON,
Acting Treasurer-General.

THE TREASURY,
Sandakan, 1st October, 1889.

Statistics showing the Course of Trade.

Year.	Imports.			Exports.				Sandakan Shipping.	Steamers, Regular Traders.	Sandakan Correspondence.		
	Rice.	Spirits.	Cloth.	Tobacco.	Timber.	Pepper.	Sago.	Tonnage.	No.	Letters.	Papers Books.	Parcels.
	$	$	$	$	$	$	$					
1883 . .	57,306	13,390	51,206	..	950	..	..	..	4	..	..	..
1884 . .	69,485	11,412	90,525	2,112	9,756	..	7,248	30,064	4	..	..	..
1885 . .	78,039	14,478	142,160	1,618	27,626	..	53,417	26,686	4	7,158	5,938	46
1886 . .	104,429	19,765	147,341	39,775	47,370	..	93,433	29,240	5	8,189	7,257	48
1887 . .	147,458	19,346	190,452	18,879	42,462	2,608	76,317	62,558	4	13,433	13,229	21
1888 . .	185,039	23,398	188,519	20,942	37,534	3,840	51,024	76,151	6	17,998	14,677	105
1889 . .	..	..	..	..	..	..	..	130,000	7	...	..	..

SHIPPING RETURNS.

TABLE SHOWING COMPARISON BETWEEN 1887-8-9.

Year.	Period.	Arrivals.	Departures.	Tonnage.	Value of Cargo.
					$ c.
1887	First half-year . . .	62	60	33,340	424,765 55
1888	,, ,, . . .	74	69	31,932	587,090 12
1889	,, ,, . . .	99	101	65,035	829,135 88

CHAPTER VI.

MINERALS.

THE minerals of North Borneo have long been reported as gold, diamonds, silver, lead, tin, copper, antimony, cinnabar, coal, iron and mineral oils. Since the unfortunate death of the scientific explorer, Mr. Frank Hatton, Government rewards have been offered to natives and others for the discovery of any valuable or useful mineral. Captain R. D. Beeston was the first European to discover gold in 1883 in the Segamah River. Nothing, however, was done until 1884, when some natives brought a small quantity from the same river; Mr. Henry Walker, Commissioner of Lands, was despatched to confirm the find; he not only did so, but proceeding with great difficulty far into the interior, found gold in many places in valuable quantities. After this, small parties of natives and Chinese ventured to go in search of gold, but although they found gold sufficient to repay them, the distance from any station or food supply (the nearest being Silam or Sandakan), was so great as to discourage them. Early in 1886 Captain Beeston started on another journey to explore the Segamah. In his reports of May, 1886, it is stated:—

"He found the country just below Pula Kawak highly auriferous, and covering a large area. Above the Pula Kawak all the beaches here about contain gold, and all would pay to work systematically. Above the Bole, a tributary of the Segamah, the whole of the Segamah river is one endless chain of payable beaches, some richer than others, but invariably the gold is coarse."

Speaking of the tributaries, Captain Beeston reports:—

"That on the Bole Besar, four Chinese with a cradle got gold worth $17·20 or $4·30 per man for the day's work. The Malays were equally successful with their wooden dishes. At Rocky Creek, another tributary

of the Segamah, gold exists both in the banks and in the river bed. Alligator Creek has payable gold at its mouth."

He concludes by saying:—

"That payable and in some places highly remunerative diggings exist in the main Segamah from the Dusun Kampong to the highest point reached; and that in addition five streams reported on separately contain gold in large quantities. The source of the Segamah, I think, is in the hills between Silam and Madai, and the inference is that the hills in this locality contain the material from whence the gold is washed down the main Segamah, and that the hills thereabout, most probably, almost to a certainty, contain rich quartz reefs."

In 1888 Captain Beeston made another expedition to the interior of the Segamah. This time he was accompanied by Mr. Sefton, a well-known and successful Australian explorer; Mr. Allard, on behalf of his Company (the British Borneo Gold Mining Company), and a Mr. Amos on private account. The party successfully reached the highest point, where the Segamah is a mere stream; they encountered many rapids, over which they had to haul their canoes before reaching this point, and then they had to wait for provisions expected in a few days by a party sent back to Etok-Batu Store. The few days stretched out to thirteen, and during the greater part of the time the party had nothing to subsist on beyond a few fish and a mouse-deer which their dog Joe managed to capture. "Poor Joe" only saved himself from being eaten by his starved appearance. The explorers were now too weak to proceed, and had to return to Silam, which they just managed to reach. Although this party was not successful in discovering the matrix or quartz reef or source of the gold, they confirmed all previous reports as to payable gold in the river beds, banks, and beaches, and gave hopes of remunerative employment to a large population in the near future. The white digger is not encouraged; the climate is not suited to the white man working out of doors, even in the shady jungle; he could not move about or travel or feed himself as he could do in Australia, and the probability is that he would either lose his health or become disappointed. To the native or Chinese labourer there is every encouragement; boating and jungle travelling does not enervate them as it does the white man. On the Segamah there is room for thousands of both. The present difficulty is the want of a road to the

interior. Mr. S. B. J. Skertchly, Managing Director of the British Borneo Gold Mining Company, who have large mining concessions on the Segamah, has endeavoured to solve this difficulty by personally examining the country and tracing the road from the river Tinkayu in Darvel Bay to the Segamah; the distance will be about thirty miles, and the Government are now taking measures for making a road over Mr. Skertchly's track. This will bring the gold miner and digger on the Segamah within two or three days' distance from the Government Station of Silam. Mr. Skertchly and his assistant, Mr. Allard, having reached the Segamah, soon satisfied themselves as to the existence or non-existence of payable gold, and the result is that the Company which he represents are preparing to operate on an extensive scale.

Within the present year concessions for dredging for gold in the Segamah River have also been granted by the Government to a London Company. In Borneo the Government is encouraging and assisting respectable parties of Chinese to settle in the district. Samples of stream tin, copper, galena, cinnabar, and diamonds have often been brought in by natives, and the hope is entertained that the reward offered by Government for a payable find will soon have some practical result.

The southern province, which was acquired from the Sultan of Brunei in 1885, contains a valuable seam of coal. This valuable mineral also crops out in several other localities, including Marudu and Sandakan Bays, and will probably be worked before long, as application has been made by a Syndicate for a Coal Prospecting Concession in Sandakan Bay and district. The Central Borneo Company, a large Company recently formed in London, have also mining concessions in several other districts, and have a prospecting staff at work.

CHAPTER VII.

AGRICULTURE.

UP to the present time agriculture in British North Borneo has been almost entirely experimental, but sufficient knowledge has now been obtained to permit of advancing beyond this stage, and commencing operations on a larger scale with such plants as are ascertained successes.

Tobacco.—About nineteen years ago it was discovered that tobacco grown in certain parts of the East India Archipelago was particularly adapted for use as wrappers for cigars; and Deli, North Sumatra, soon attracted capital and labour, until the importation into Amsterdam and Rotterdam of East Indian tobacco increased from thirty thousand pounds in 1865 to seventeen million pounds in 1882, and has since been steadily increasing.

Many fortunes were made in Sumatra by private individuals, and several large companies sprang into existence, which have continued to flourish, many having paid dividends of over 100 per cent.

Planters in Deli are hampered by heavy taxation, and as suitable land is now difficult to obtain, a new field is eagerly sought by tobacco planters. The first Deli planter who explored the territory of the British North Borneo Company, wrote:—"The first tobacco leaves were brought to me at Niow, on a very steep high hill, and when I saw the character of the plant, though only in a few poor leaves, culled and brought to me by a native, I was amply rewarded, and knew from that moment that North Borneo would be a tobacco-producing country."

Tobacco of an excellent quality has long been known to exist in North Borneo. The soil, with its covering of "humus," is very suitable, and the seasons are favourable. Planting takes place in April or May, and in seventy days the leaves are gathered, so that three months only elapse from the time the

seeds are put in the nursery beds until the gathering of the harvest.

In 1883 the first planting company in North Borneo was formed, under the title of the Chinese Sabah Company, which began operations in shipping timber and in planting tobacco in Sandakan Bay. In 1884–85 they produced a crop of some 400 bales, samples of which were submitted to experts, and elicited the following reports:—

Extract from MESSRS. SALMON & GLUCKSTEIN'S *letter, dated 4th June*, 1886.

"I have the pleasure of informing you that the sample of Borneo tobacco you were kind enough to show me, and to let me test, is first-class, and in my opinion would, judiciously handled, readily be adopted by all cigar manufacturers in England and America as a perfect substitute for Sumatra leaf. I have no hesitation in saying that, with a little more care being taken in fermenting it, this tobacco should realise from 3*s.* to 4*s.* per lb. in first quality brown wrappers."

Extract from MESSRS. WESTERVELD & CO.'S *letter, dated 15th June*, 1886.

"Although we have seen as yet very little of North Borneo tobacco, and that in an unfermented state, we come to the conclusion that the tobacco is fully equal to Sumatra, and may later on be even better than Sumatra; it will be the tobacco of the future."

Extract from MESSRS. H. N. DAVIS & CO.'S *letter, dated 2nd July*, 1886.

"Since writing the above, we have sent up to the Colonial Exhibition and been favoured with a type of the tobacco; judging therefrom, and making all allowances for the fermentation not being settled, we have not the slightest doubt in asserting that the characteristics are most satisfactory as compared with those of the growth of Sumatra; the leaves are occasionally rather thick and the veins somewhat prominent; the sorting should have more attention; but all these faults can be remedied with care. The great point is, judging from the type we have seen, we can pronounce the growth a genuine cigar tobacco growth, and with more care will prove a most formidable rival to Sumatra."

At a meeting of Tobacco Brokers and others interested in the trade, held in the Conference Hall of the Colonial and Indian Exhibition on 6th August, 1886, under the auspices of the London Chamber of Commerce, the samples of British North Borneo tobacco were exhibited with others; and a report upon them has been made by Mr. C. A. Muller, of the firm of Messrs.

Westerveld and Co. This gentleman having been for more than fifteen years largely interested in the culture of Sumatra tobacco, and thereby acquired an extensive and practical knowledge of its management as regards planting, importing, and sale, may be considered a competent authority on the subject; and his report is as follows:—

"The tobacco grown on the Suanlambah Estate, North Borneo, as exhibited in the Colonial and Indian Exhibition, although not fully cured, promises to become a formidable rival to Sumatra, as soon as large quantities can be produced. The North Borneo tobacco is almost in every respect equal to the Sumatra growth, and certainly superior to that grown in Sirdang and in some parts of the Lankar district. It ranks with the Deli tobacco, which is acknowledged to be the finest grown in Sumatra. The leaf of the North Borneo tobacco from the Suanlambah Estate is full grown, healthy, strong, and elastic, broad and well feathered. The colour is good ripe brown; a large proportion is the rich dark brown, so much liked in England and America; and a fair quantity also of the light brown colour, so suitable for the German market; when this tobacco has undergone a full and careful fermentation, the colours will greatly improve, they will become more level, and lose the mottled appearance of the not fully fermented leaf; then they will undoubtedly make very handsome cigars, and possess also the gloss so much liked in Deli tobacco.

"The burning is very fair, although, as is well known, fresh, soft, imperfectly fermented types will at first not burn so white as those properly fermented; this is the case with almost all cigar tobaccos, Sumatra not excepted; and I have not the slightest doubt that the burning of the Suanlambah tobacco, after a careful and full fermentation, and if it has not been cut in an unripe state, will be found equally as good as the best Sumatra.

The flavour and taste is, in my opinion, not inferior to Sumatra, and will also much improve after a full and good fermentation.

"The productiveness of this tobacco is great; one pound English weight of that shown in the Colonial and Indian Exhibition has produced or covered nearly 500 good middle-size cigars. Thus 2 lbs., or say even $2\frac{1}{2}$ lbs. to make sure, would cover 1000 cigars. Now every man in the cigar tobacco trade must admit that such productiveness is fully equal to that of Sumatra.

"On the whole, so far as we are at present acquainted with the North Borneo tobacco grown on the Suanlambah estate, it promises to become in all respects—texture, colour, burning, flavour, taste, and productiveness—equal to the best Sumatra tobacco; and considering that Sumatra tobacco has reached its zenith, and that a large proportion of the virgin soil, after nearly 20 years' planting, has been absorbed, North Borneo has a brilliant future, the more so as the Sumatra tobacco seems to get inferior from year to year, owing partly to the now limited area of virgin soil, and partly to the enormously high dividends which Sumatra Companies and planters made of late years, in consequence of which they all plant for quantity and not for quality, while the sorting has been sadly neglected; for those reasons, but more so on account of the extremely high prices which must be paid by

second hands, not only the German, American, and English, but even the Dutch dealers (second hands) would gladly welcome in North Borneo tobacco a new rival. Mr. Harkema, a well-known Amsterdam broker, in his speech, expressed himself in the same way, and was full of praise of the North Borneo tobacco which he saw in the Conference Hall of the Colonial and Indian Exhibition. Messrs. P. Veerkamp Van Embden and Zoonen, also well-known Rotterdam tobacco brokers, who received a small type of the Suanlambah estate tobacco, have a very good opinion of it, and believe that North Borneo has a brilliant future, if it produces tobacco like that shown in the Exhibition.

"Messrs. B. Morris and Sons, of London, an old and first-class firm of cigar manufacturers, state that the productiveness of the Suanlambah tobacco, of which they received a copy, is on par with the first Sumatra leaf of average crop."

Unfortunately their capital was not sufficient to enable them to carry on and reap the reward which their first crop promised. But the work of this pioneer Company was being carefully watched by others. The Count Geloes d' Elsloo applied for and secured a large area of the finest tobacco land in Marudu Bay, and in 1887 planted his first crop, which in every way satisfied the hopes and expectations of himself and his friends; so much so, that he had no difficulty in forming the London-Borneo Tobacco Company, with a capital of £100,000. The Baron von Stein was the next to open a tobacco-planting estate in Darvel Bay. Others soon followed, and at the present moment some twenty Companies are opening tobacco estates in Marudu Bay, Sandakan Bay, Darvel Bay, Kinabatangan, Labuk, Sugut, and Segamah rivers, while additional concessions are being applied for in almost every bay and river in North Borneo. The nationality of these Companies is a striking proof of the success of the tobacco enterprise, and the confidence reposed in the administration. Eight of them are Dutch, or formed by Dutch gentlemen from Sumatra, Java, and Holland; one is German, and the remainder are English Companies, formed in London and Hong Kong. The estates vary in size from 10,000 to 40,000 acres. This will give some idea of the number of acres being brought under cultivation. The tobacco grown in North Borneo is the fine quality used for covering cigars; and it may be mentioned that the prize recently offered by the London Chamber of Commerce for the best sample of tobacco grown in any British Colony, was equally divided between British North Borneo and Jamaica, the former for

superiority in market value, and the latter for superior smoking qualities. This tobacco from North Borneo was grown in Marudu Bay, on Count Geloe's estate of Ranow.

Further and latest particulars as to the prospects of tobacco in North Borneo will be found in the Appendix.

Sugar.—Whatever question there may be as to the profitable production of sugar, there is only one as to the luxuriant manner in which the cane grows. In however primitive a mode it is planted, it grows with the utmost strength and vigour, so much so that the minimum of care bestowed upon it by the natives enables it to overgrow weeds that would choke it in any other country. This is probably attributable to the soil and climate being extremely favourable to this particular plant, which has therefore been a great favourite with the labour-sparing natives. As it does so well with them, it can be imagined how well it would repay systematic cultivation.

Owing to the heavy fall in price consequent on the over-production of beet-root sugar, cane-growing has been but little tried by European planters in North Borneo as yet, and nearly all that has been grown has been sold in the local market for chewing purposes. Some few experiments in sugar-making, however, have shown that the cane contains an unusually large percentage of saccharine matter. Of the canes tried, Sumbelowan (yellow streaked with green) gave the best results, yielding syrup of a density of 10·5 per cent. (Beaume); Tubu Putih (or Lahinia as it is called in Australia), giving a result of 9·5 per cent.

The possibilities of growing beet-root are now pretty well known, and its cultivation has been somewhat curtailed, nor is there much chance of its being increased; there is now reasonable expectation that when present stocks of sugar are reduced, some recovery in price may be looked for, but it is not therefore to be supposed that prices will ever quite regain their former level; and it is clear that only those places that are possessed of the greatest advantages in the way of cheap labour, cheap land, suitable soil, favourable climate, and great facilities for transport and export, will ever be able to successfully compete against the lower prices caused by the large production of beet-root sugar favoured by bounties.

All these advantages are possessed in an eminent degree by British North Borneo.

Labour is always to be obtained at from $7 to $9 a month, the labourer finding his own food; this compares extremely well with Australia, where, for instance, we hear that Chinese receive £3 a month and rations (or say over $20 per month).

And now that agriculture in Java has received a severe blow, it seems probable that a large supply of skilled and acclimatised labour can be had from that quarter, at even lower prices.

In Cuba and the West Indies a Chinaman's wages on sugar plantations are even higher than in Australia.

Land possessing every advantage for sugar-growing, including river frontage, is to be had by thousands of acres at the very cheapest price.

Soil.—There is no question as to its suitability. Wherever cane is grown, from a few stools in a Chinaman's garden to the rather large quantities put in by the natives of the interior for their own consumption, one glance is sufficient to show how it thrives.

Transport.—There are immense facilities for carriage by water, both of cane to the mill, and of sugar from the mill to the ship's side. Taking Sandakan Bay for example, the numerous rivers which run into this magnificent harbour are lined along their banks with hundreds of acres of land of the most suitable kind for sugar-growing. Mills erected at the mouths of these rivers could be supplied with cane by the boatful, dropped down with the tide from the fields above; and the sugar, when manufactured, could be kept until a steamer was expected to call at Elopura, when it could be sent across the harbour and put straight on board the export steamer, thus saving all the expense of coolie hire, wharfage, rent, and all other expenses incident on trans-shipment.

Climate.—Nothing could be more suitable for the growth of cane than the climate. Not only is British North Borneo free from those frosts that occasionally destroy whole fields in some parts of Australia, but also, owing to the even distribution of the rainfall, and the infrequent occurrence of either too wet or too dry seasons, crushing can be in constant operation nearly all the year round, with the exception perhaps of a few weeks

in December and January. This is one of the greatest points in favour of sugar-making in North Borneo as compared with other countries.

The chief disadvantage is the number of wild pigs, but they are not more numerous than in other tropical countries, and in any case hard wood is at hand, in any quantity, to make fences.

With all these combined advantages, there seems little doubt but that North Borneo, when sugar-making is undertaken seriously, will soon take the lead as one of the largest sugar-producing countries in the world.

Pepper is in course of trial in two or three places, and that longest planted is in heavy bearing. It would have been much more extensively grown but for the difficulty in obtaining slips from the Straits, as the Chinese there, knowing what a good paying plant it is, do all they can to keep it to themselves. There are now, however, so many growing plants, that there will be no further difficulty from this cause.

Fifteen years ago Atcheen used to be the country exporting most pepper, but the war there has almost entirely stopped its cultivation, and the population has been so reduced that even if the war ended, of which at present there seems no prospect, there is no chance of pepper-growing being resumed on any scale. In Singapore and Johore the soil, very poor to commence with, is nearly all used up. In Sarawak the cultivation is extending, and is a source of great profit to the grower and to the country generally; but the soil is against any great extension, except in some favoured spots. Owing to these causes, the price of pepper is continually advancing. Fourpence a pound used to be looked upon as a paying price to the grower; but for long past the price has been rising, until it now stands at sevenpence halfpenny per pound, and the profits on its cultivation are undoubtedly something enormous.

Pepper seems to flourish in but few countries, Borneo and Sumatra being almost the only two; and owing to the disturbed state of the latter, its cultivation in the former, and in British North Borneo particularly, seems likely to be largely extended. In fact, Borneo may, in time, become one of the largest pepper-producing countries in the world.

Gambier.—The cultivation of this plant usually accompanies

that of pepper. There is none at all to show in North Borneo, as there has never been a single plant there. The reason of its being a favourite of pepper growers is, that its leaves, after having had the gambier boiled out of them, form a capital manure for pepper plants, while to other plants they are said to be injurious. Of late years the demand for gambier has increased, several new uses having been found for it (more especially for tanning purposes); and as most of the available land round Singapore and Johore has been used up, its cultivation does not seem likely to extend, except in North Borneo. At the present high price this should also prove a lucrative industry. The undulating land surrounding Sandakan and Marudu Bays is admirably adapted for pepper and gambier planting.

Manila Hemp, known in the Philippines as abaca, and in Borneo as lanoot, is the fibre extracted from the stem of a plant of the banana tribe, *Musa textilis*. Frequently attempted in other countries, it would seem that it cannot be grown successfully anywhere else than in the islands hereabouts, and it has long been a speciality of the Philippines alone. A small amount of rope made from it is exported from Sooloo, and wherever it has been tried in North Borneo, it has done equally well. The difficulty in Borneo has been the want of trained labour to manipulate it, the process of extracting the fibre hitherto having been a long and tedious one; but all these difficulties are obviated by using some of the new fibre machines; and as a consequence the cultivation of Manila hemp may be expected to receive a large impetus shortly.

In the Philippines, charges and duties upon trade and shipping are very heavy, and commerce is much harassed by the officials, business men therefore will much prefer dealing with North Borneo for this article, than with a Spanish governed country, and there is no telling to what extent the Philippines may be supplanted in its production.

Musa textilis, like other bananas, grows better on gentle slopes than on the flat, so that land, not suitable for sugar and other plants which thrive best on the flat, can be planted up with it. Like sugar-cane, the bulk requiring to be handled is very large compared with the result produced by manufacture, and in selecting a site for a manufactory care must be exercised in order that the stalks of the plant may be conveyed to it at a

minimum of labour, and therefore of expense. There seems no reason why the fibre machines should not be attached to the sugar mill, and boats used for conveying the stalks to it in the same way as the cane.

The cultivation of *Musa textilis* is attended with but very little expense. Being such a vigorous, robust plant, it requires but slight aid to help it to keep down the weeds. The felling, burning, and clearing of the forest is therefore almost the only expense attending its cultivation. It is not touched by wild pigs, though a plantation of true bananas, bordering an unenclosed nursery of *Musa textilis*, has been known to be rooted up. A fresh stem in each stool is said to ripen ready for cutting every two months; and as, with other plants in North Borneo, there is no season, when once it yields ripe stems it goes on continuously. Stools have been known to go on untended, and unmanured for three years, without showing any diminution of their producing powers.

Cocoa.—On the Segaliud River there are two or three small groves, planted by the natives long ago, which throve admirably and bore freely. A small European plantation of cocoa on the Sibooga was doing remarkably well, commencing to fruit, when circumstances led to its being abandoned; even after this they continued to bear. The vigour and size both of the trees and fruit at Segaliud lead us to hope that cocoa will be one of the main products of the country if properly tried on good soil.

Cocoanuts.—The cocoanut palm flourishes everywhere in this part of the world, inland as well as on the sea-shore, which is somewhat strange, as in many places there is a theory that sea air is a necessity for it; whereas in the Philippine Islands, groves of countless thousands of them exist far inland, bearing heavily and looking extremely healthy. In North-Eastern Borneo also, the only two groves known, one at Malapi and one at Segaliud, bear nuts larger than the average.

The demand for cocoanuts and copra is very large, and with cheap labour, North Borneo is able to produce nuts at a lower rate than almost any other country. The great point in its favour is that, owing to the suitability of the soil and climate, trees bear fruit much earlier than in most other countries. A considerable number of trees in a grove should be beginning to bear at from four to five years of age.

The uses of the cocoanut tree are manifold; the nut itself is almost a necessity for curry-making all over Malaya; the driest kernel, known as copra, is in steady demand in England and elsewhere for oil making, and other purposes. Tapped trees yield cocoanut beer, or tuba, as it is called in the Philippines. The refuse of the kernel after the oil has been extracted is used for manure, and for food for cattle and pigs; the husk yields coir for rope and mat-making.

The Betel, or Areca Nut-palm, flourishes extremely well in North Borneo. A good trade is done with China and Europe from other tropical countries, and there is no reason why Borneo should not also be an exporting country, more particularly as large quantities of these trees are growing in the abandoned native clearings everywhere, on the Kina Batangan particularly.

Liberian Coffee has been tried in several places with fair success so far; notwithstanding that leaf disease has made its appearance in one or two places, the oldest planted trees are bearing freely; but the operations of picking, pulping, &c., are found to be more expensive than in the case of Arabian coffee, and until more light is thrown on this subject, and the worst that leaf disease can do is known with certainty, the cultivation of Liberian coffee on a large scale is hardly advisable.

Should it be proved that Liberian or any other kind of coffee can be made to pay, immense districts will be available for its cultivation, as there is no necessity that it should be planted near to water transport. It is a strong handsome plant, which "flatters" the planter almost from the first day it is put in the ground; its growth is said by experienced planters to be very much more rapid and vigorous in Borneo than in India.

Kapok, or Cotton flock, has been long known in the East as a material for stuffing mattresses, pillows, and the like, it being much preferred to feathers, and nothing can be cleaner or more suitable for such purposes. Latterly a demand has been springing up for it in Australia and Germany.

It is said also that the seed affords a very nitrogenous and palatable substance, likely to be more and more used as a food for man as well as cattle.

Cotton flock grows very freely in North Borneo, and is remarkably easy and cheap to cultivate, the ground being cleared in the ordinary manner, all that remains is to obtain

cuttings of cotton flock trees of the length of an ordinary walking-stick, which are simply stuck in the ground on a rainy evening. These grow up so quickly that with but one or two rough weedings they are large enough to take care of themselves.

India-rubber has been before referred to under the head of Forest Produce, but is well worthy of further remark as a plant which would repay European cultivation.

As mentioned before, its cultivation is attended with but very little expense, as it grows best in ordinary forest without any felling, clearing, or subsequent weeding being necessary. As nearly the whole work entailed would be of a "forest-ranger" nature, to see if the plants were coming on properly, and to warn away any bands of native collectors, the care of an India rubber forest would seem to be work that would be very suitable to any one with natural history or sporting tastes. In four or five years' time every creeper should give two or three dollars worth of "gutta susu," as it is called.

Sago Palm.—Native name "rumbiah." Two kinds are known in Borneo: Sagus, or *Metroxylon lævis*, the spineless variety, and Sagus, or *M. rumphii*, the trunk of which is armed with long and strong spikes, which tend to preserve it when young from the attacks of the wild pig which abounds in all parts of Borneo.

The palm attains a height of from twenty to fifty feet, and grows in vast forests in swampy land, along the banks of rivers, not far from the coast.

What is known in Europe as sago is obtained in the shape of a fine white flour from the heart of the palm in the following manner. Just before the terminal spike of flowers appears, about six to eight years from the time of planting, the palm is cut down at the root, divided into lengths to suit the manipulator, and each length split in two, when the pith is scooped out by means of bamboo hatchets, a thin outside skin or rind being all that is left. The pith is placed on mats over a trough by the river-side, and, water being constantly poured over it, is trodden out by the feet of the natives, a rough separation of the starchy from the woody matter being thus effected, the former running off with the water into the trough below, while the latter remains on the mat and is thrown away or used as food for pigs. The sago, known then as *Lamunta* (raw), is sold to the Chinese, by whom it undergoes further cleaning by means of frequent hand-

washing in troughs, and is then packed in gunny bags and exported to Singapore. There it is either converted into the pearl sago sold in the shops, or is sent direct to Europe as flour for use in sizing cloth, the manufacture of beer, preparation of confectionery, &c.

A full-grown tree is said to produce 200 to 300 lbs. of sago flour. The sago flour, boiled into a paste (*boyat*), is largely used as food in the place of rice in the districts where it flourishes, but rice, when it can be afforded, is preferred.

If the palm is allowed to flower and seed, the pith of the centre is found to be dried up and useless, and the tree dies.

The seeds are often unproductive, but each palm gives out numerous offshoots, which take the place of the parent tree, and themselves in turn leave a family of offshoots, so that a sago plantation once started, practically "goes on for ever."

Sago grows vigorously everywhere in suitable damp localities. Prices have declined in the last few years, but are never likely to go so low that it would not pay to grow it in picked situations in North Borneo: situations, that is, affording the best facilities for transport from the place of growth to the manufactory, and from thence to the export steamer; while as sago is a favourite article of diet amongst many of the inhabitants of North Borneo, a considerable and increasing quantity will always be required for local consumption.

The following extracts from a pamphlet on sago growing, by Mr. W. M. Crocker, will show how comparatively inexpensive its cultivation is, and what the profits are.

"It may give some idea of the enormous rate of this produce if it be considered that *three trees* yield more nutritive matter than an acre of wheat, and six trees more than one acre of potatoes. A single tree will supply 600 lbs. of food." His estimate for planting and bringing to maturity a plantation of 500 acres is $18,880, which includes upkeep, care and interest for ten years, after which "the plantation should continue to yield a profit of from $15,000 to $20,000 yearly." "As each parent tree is surrounded with young ones which ripen in due succession, a sago plantation once made will never be exhausted;" returns, however, should begin to come in six or seven years, and not ten; but the chief objection to sago planting is undoubtedly the length of time that elapses before the plantation is in full bearing.

Tapioca is much cultivated by the natives; and some of the tubers, more particularly those from the Kina Batangan, are of immense size. Should there be any permanent rise in price of tapioca, it can probably be cultivated at a lower cost in North Borneo than elsewhere.

Cinnamon grows wild in North Borneo.

Cotton, Sapan wood, Nutmegs, and *Citronella grass* are all under trial, and seem to do very well. Wild nutmeg trees are found growing in the forest.

Indigo.—What little has been tried seems to do very well; there are immense stretches of flat land suitable for its cultivation.

Ginger is cultivated with great success in some Chinese gardens.

Fruits occur in great abundance in the forests; in a good fruit season it is astonishing what a lot of fruit trees are apparent; wild duriens, rambutans, pulusans, langsats, lychees, mata kuchings, &c., abound, and the smell of various sorts of wild mangoes is scarcely to be avoided. Some few of these may become available for export in time; duriens, for instance, would undoubtedly sell well in Hong Kong if fast steamer communication could land them there in good condition; and a sort of nut known as the Buah mytas, something resembling the Brazil nut, abounds in the forest in some seasons, and might be utilised; but the enormous quantities of other fruits that fall to the ground yearly are more likely to continue to fatten orang-utans, monkeys, elephants, rhinoceroses, squirrels, and pigs, than to be turned to any more profitable account.

From the foregoing remarks it will be seen that British North Borneo is unusually rich in natural products, and that the only thing needed to develop these riches is an increased population. It is also to be noted that however large the population may grow, so enormous is the supply of many of these articles of commerce, that instead of working them out, the only result is likely to be an ever-increasing outpour.

Native Agriculture.—Maize, paddy, bananas, sweet potatoes, &c. The system of cultivation carried on by the natives is only capable of being conducted in a wonderfully fertile country. A piece of ground is selected, usually one that has undergone the same treatment a few years previously, the felling and clearing

is conducted in the usual manner, after which Indian corn, and paddy are planted simultaneously. Ploughs and hoes are quite unknown (except in some of the more thickly populated districts on the west coast), and not a clod is turned over; the mode of operation is for a man and a woman to walk one behind the other, the man in front, dibbling a hole with a sharpened stick, into which the other drops one or two seeds, and then scratches a little earth over the hole with her toes. In this manner a large field is very soon planted up with two crops without any lengthened operations. In seven or eight weeks the corn is ready to pull, the paddy in the intermediate lines between the corn being rather poor-looking in consequence of being overshadowed by its long stalks; as soon as the corn is cleared off, however, the paddy rapidly springs up, and in two months more it, too, is ready for cutting. During the time the paddy is coming to maturity, the fields require weeding three times. In some cases, while the paddy is but half grown, tapioca cuttings are planted, which are getting their feet under them while the paddy is ripening; in all cases no sooner is the paddy cut than something else is coming on, either tapioca, kaladi, or what not; before such crops as the last named are ripe, banana suckers and sugar cane are planted. The ground being cleared of the tapioca, sweet potatoes are put in round the bananas, no further weeding is undertaken, and the sweet potatoes are left to fight it out with the grass. As soon as the potatoes begin to ripen, the yield is continuous, but when the weeds finally get the mastery, the people desert that place and make a new start somewhere else, as they consider it less trouble to fell, burn, and clear a new site (the burning destroying all the grass germs there) than to continuously combat the grass. This habit of working hard by fits and starts, in preference to using continued slight effort, is very typical of the Malay character.

All the operations are conducted in the most primitive manner, the wood knife or parang being the only instrument used; this is thrust in the ground in a slanting direction two or three times, and it is never thrust in three times if there is any hope of two thrusts being sufficient; the amount of earth turned over is rarely more than a handful, and the slip of tapioca, sugar-cane, or whatever it may be, is stuck in the hole and left to take care of itself, and such a thing as a failure is practically unknown.

Such a proceeding as turning over the whole ground is undreamt of. Sweet potatoes are planted from slips of the tops, not from portions of the tuber, as with our potatoes.

These operations occupy a term of two years or so, during which time crops of one sort or another are following each other in quick succession, and without intermission. Paddy they store up, but nothing else; and from year's end to year's end, whatever else they require for the day's consumption, they send into the fields and fetch. When moving to a place at some little distance, operations are begun there while the old potato fields are still yielding fairly well, and they draw their supplies of them from the old place, while the paddy is ripening at the new one.

So prolific is nature that six houses (huts) crowded with inhabitants, in a space of under two acres in extent, on the Kina Batangan, have been known to draw their entire subsistence, day after day, out of this little lot.

In consequence of the ease with which food is obtained, the people are very lazy; food is always within their reach; their houses are flimsy in the extreme, made by the family of materials always ready to hand; clothes are very scanty; furniture there is none; coals, taxes, lights, wages, &c., the items which make up the chief expenses of a household in Europe, are unknown, so that the natives get such habits of laziness ingrained into them, that they let their houses get filthy to a degree, and but rarely trouble themselves even to catch fish or raise chickens as a change to their vegetable diet.

Nothwithstanding the little exertion they put themselves to, the result in crops is very large, and the price of many things is very cheap in consequence. Indian corn, for instance, is at times obtainable in barter at prices equivalent to as many as 2000 heads for a dollar, or about 1*s.* per bushel on the average.

CHAPTER VIII.

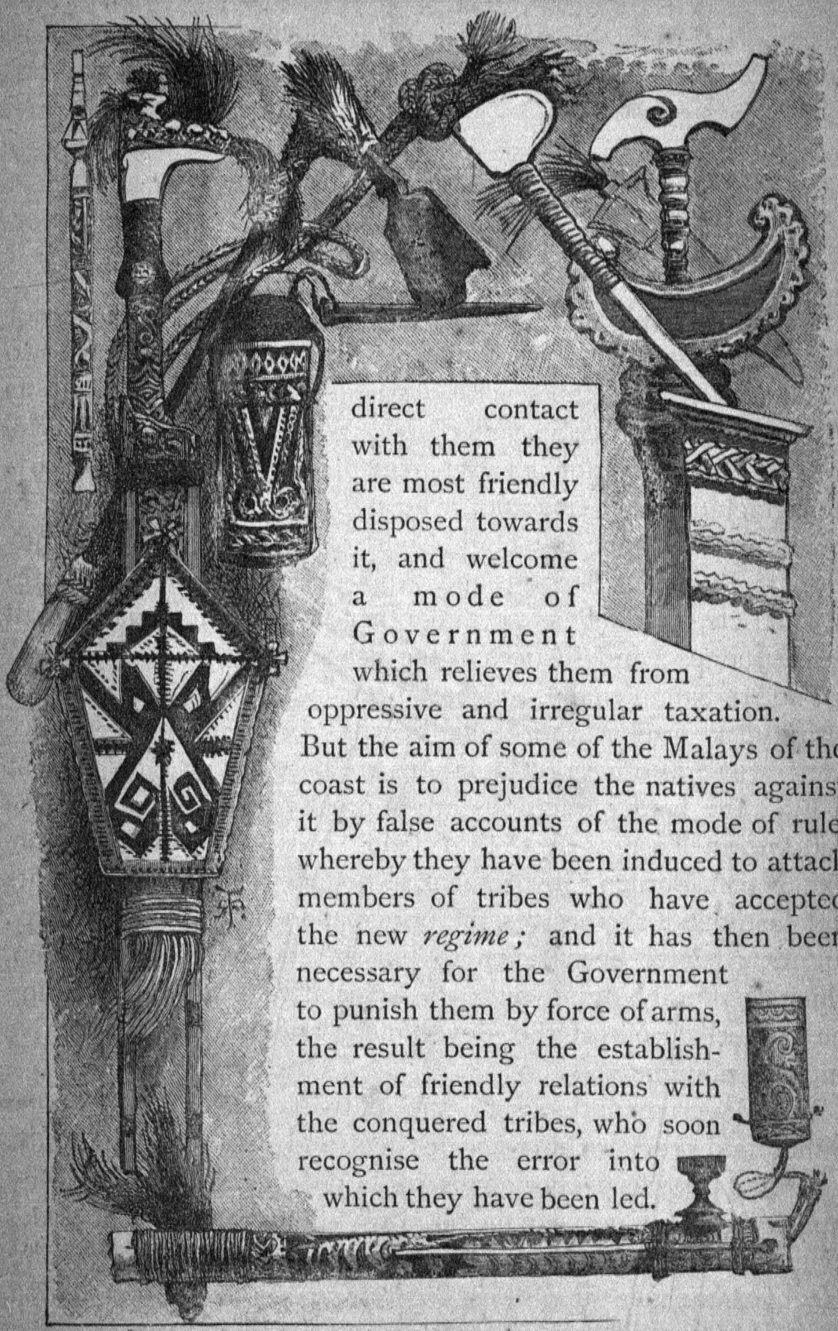
FORM OF GOVERNMENT, ETC.

THE Government of the Colony is administered by a Governor with the assistance of a Colonial Secretary, under whom are two Residents of Districts, several Assistant Residents, as well as Treasury, Land and Survey, Public Works, Harbour, Medical, Judicial, and Constabulary Departments. The Judicial Department includes the Governor, who is the chief judicial officer of the Supreme Court and High Court of Appeal; the Residents, who are Judges of Sessions and Appeal Courts and Magistrates of Districts; as well as several other Magistrates and Small Cause Judges; and Justices of the Peace.

The Indian Penal Code has been adopted almost in its entirety, as well as the Indian Civil Procedure and Evidence Acts. Several other proclamations are based upon Acts current in Fiji; the land regulations are in great part adapted from the well-known Torrens Act, title being based upon registration. The North Borneo Government is bound to respect the rights and customs of the natives, the principal one of which is slavery; but means have been taken to put an end to this institution, which is rapidly dying out. A Legislative Council, including the higher officers of the Government and the leading native chiefs, is nominated.

The Government looks to the native chiefs and headmen to maintain order within their districts, and so effectively is this done that few true aboriginals of Borneo ever appear in any capacity before European magistrates. The police force includes about 300 men, under a Captain Commandant; a large proportion of these men are Sikhs, the rest are Somalis from Africa, Brunei Malays, Dyaks, &c.

As regards the feelings of the natives towards the new Government, experience shows that as soon as it gets into



direct contact with them they are most friendly disposed towards it, and welcome a mode of Government which relieves them from oppressive and irregular taxation. But the aim of some of the Malays of the coast is to prejudice the natives against it by false accounts of the mode of rule, whereby they have been induced to attack members of tribes who have accepted the new *regime;* and it has then been necessary for the Government to punish them by force of arms, the result being the establishment of friendly relations with the conquered tribes, who soon recognise the error into which they have been led.

BORNEO WEAPONS.

The sources from which the revenue is drawn consist chiefly of the licences for purchasing and retailing opium for smoking, for the sale of spirits, and other excisable articles, all of which are farmed out to private individuals; 10 per cent. royalty on jungle produce exported; a poll tax, an old-established source of revenue among the natives, in lieu of land taxes, and a stamp duty. The land revenue comprises the proceeds of sales of public lands, quit rents, and fees on transfers. There are, in addition, judicial fees and post-office stamps; these, and a few miscellaneous items, make up the remaining sources of revenue.

BRITISH NORTH BORNEO.—REVENUE AND EXPENDITURE.
1883 TO 1888.

	1883.	1884.	1885.	1886.	1887.	1888.	1889 (estimated).
	$	$	$	$	$	$	$
Revenue (proper)	51,654	82,448	110,452	127,731	142,687	148,287	221,365
Land Sales . .	25,449	15,458	2,863	12,035	14,505	246,457	200,000
Total . .	*a*77,103	97,906	113,315	139,766	157,192	394,744	421,365
Expenditure . .	*a*391,547	242,450	241,398	223,562	209,853	252,165	364,760

a. 18 months, 1st July, 1882, to 31st December, 1883.

SPORT, NATURAL HISTORY, ETC.*

The difficulty of obtaining good big game shooting anywhere over the whole world is always increasing. The shooting ground is always receding; bison in America may be regarded as finished; the difficulty and expense of obtaining a good bag in India is yearly growing greater; while Africa has almost ceased to be a large game-shooting country at all, except to a select few; so that the finding of an extensive district in North Borneo well stocked with big game is quite a boon to the sportsman.

The large animals found are elephant, rhinoceros, buffalo, deer, pig, bear, and orangutan. The older visitors and encyclopedists always spoke of the elephant as an inhabitant of the north-east of Borneo, but so few travellers visited that part, that this fact was gradually lost sight of, and so recently as

* See 'The Field,' 3rd August, 1889.

eight years ago the existence in Borneo of the elephant at all was denied; there is no doubt, however, but that it and the rhinoceros are both indigenous to the island.

No elephant has yet been bagged by a European. Frank Hatton had shot at and wounded one on the occasion when he met with his fatal accident, and one or two others have been shot at from time to time. Europeans, when they go into the forest, are usually on business—exploring, path-cutting, surveying, and the like—and the noise made by the number of coolies and carriers that accompany them frightens all game away; traces, however, are very common, and it is difficult to penetrate into the forest anywhere without seeing the huge round footprints of elephants and the smaller track of the rhinoceros with its three distinct toemarks. The natives occasionally shoot elephants, and one or two of their tusks are generally on sale in the Bazaar. They usually fetch a rather higher price, and are sent over to Sooloo to be converted into creese handles. The proportion of tuskers may be taken to be about one in four; of four elephants that some Booloodoopies shot at Terruttum (in Dewhurst Bay), one only was a tusker; out of a herd of five that were met on the Batang Ypel path two were tuskers.

They frequently move about in large herds. In some places the country for over a mile has been found everywhere covered with their footprints, denoting the presence of a herd that may be estimated at a hundred at least. *Rencontres* with them in the forest are not unfrequent, and generally give rise to some ludicrous incident, the fright usually being mutual. Mr. Pryer, the Resident of the East Coast, relates that on one occasion a tusker ran in amongst a whole line of birds'-nest collectors carrying rattan ladders, provisions, &c., to the Madai Caves; there was a wild casting away of all their baggage, while the elephant, no less alarmed, rushed off at full speed, upsetting some of them. He was within a couple of hundred yards, but only appeared on the scene in time to find all his followers up in the trees like a flock of large monkeys. On another occasion, camping out in the forest, in a little lean-to, with his men all close by, he was awakened by an elephant grumbling away to himself within a few feet of his head, having almost overrun him in the dark and evidently cogitating as to what the strange smell was which had

brought him up. The after occurrences were somewhat singular. Mr. Pryer roused the men and fired rifles, with the result that while the elephant remained quite silent, a peculiar noise from a tree close by announced the presence of an orangutan there, which the men thought must have been mistaken for an elephant; but immediately afterwards a large forest tree fell down with a tremendous crash, which was too much for the elephant; off he went, trumpeting loudly, evidently with a wholesome fear of people who could throw large forest trees about. What caused the tree to fall down was not known, but it may have been that, already rotten, the movements of the orangutan in it when the firing took place may have had something to do with its fall. The fresh tracks of nearly twenty elephants were found close by.

A plantation of *Musa textilis* (the Manila hemp banana) on the Sebooga River, not ten miles from Sandakan, temporarily abandoned, was completely eaten out by elephants, and their tracks are sometimes seen even closer to the town than this; should a proper shooting-party be organised, a fortnight's journey in the forest would certainly enable them to bag several elephants.

Near Port Elphinstone, elephants are quite a nuisance, frequently destroying the native's tapioca plantations. The district in which they range seems to be for some reason sharply defined, as although abundant there, a few miles further south they are quite unknown; the same thing also occurs to the northward, for though abundant near the mouth of the Labuk, they are unheard of in its interior.

The rhinoceros (*Rhinoceros Sumatranus*) is to be found over much the same ground as the elephant, and is rather more often seen than it; for although there are not so many of them, it does not seem to be so timorous and ready to take alarm, and they are not unfrequently shot by the natives. They come closer to the towns than elephants do, and have more than once strayed inside the suburban line of Sandakan itself; on one occasion one went into a garden in the outskirts of the town and ate some melons; on another, one managed to get into a chicken-house on the Beatrice estate, and when a man went with a light to see what it was, it rushed through the other side, carrying away part of the fencing with it; on still another occasion, one

came in from the forest and trotted past Mr. Pryer's house into town in the middle of the night, but not liking the lights, came back again and went down a gully at the back of the house, and not 70 yards off, where it made a great noise, while he and his wife stood in the verandah with a rifle, thinking that it might charge at the house, or something.

Next in importance to elephants and rhinoceroses, buffaloes take rank. It is still uncertain how many species there are; the one commonest on the east coast, and known by the natives as Lissang or Seladong, is, most probably, *Bos Banting*. It is said that its place is taken on the west coast by *Bos Gaurus*, there called the Tambadau, but Mr. Pryer has never seen any horns that could be identified as those of *B. Gaurus*, while the people of the west coast freely apply the same name, tambadau, to what the people of the east coast call the lissang. Some of the horns shown differ so much from the others, that they seem to indicate that there are two species, but the exact localities from which the different horns were obtained are not given. It is also averred that there is a species of wild cattle found at the mouth of the Kina Batangan river; this is likely, but there is not sufficient evidence to say that it is certain.

Wherever over the whole country clearings have been deserted and become overgrown with grass, tracks of buffaloes are very abundant. At Segaliud hundreds of tracks have been seen in a four-acre space, and in many other places where there is open ground their tracks quite puddle up the soil. On one occasion, stalking a large herd on the Kina Batangan beach, Mr. Pryer was noticed by them, and the old bull, a grand animal, trotted forward, jumped on a hillock, and stood sideways, looking and lashing his tail, while the rest ran behind him into the forest. Mr. Pryer was over long in admiring him, but was just adjusting the sights upon him when he jumped off the mound and disappeared.

Of deer three kinds are known—the sambur (*Rusa Aristotelis*), the kejang (or roe), and the mouse deer, or chevrotain. These are all three fairly and evenly distributed over the country and in no inconsiderable numbers. As to the sambur, on the sea beach at sundown, always a good time and place for game, six have been counted within twenty minutes when rowing by; and once at Timbu Mata seven were bagged in three hours. The

evening before, one which had been driven into the sea was followed by the steamer, noosed, and hoisted on board. On a plain near Kudat the sambur is sometimes hunted with horses and dogs, and affords capital sport.

The kejang is a pretty little deer, about the same size as an English roe; it seems to prefer the neighbourhood of clearings rather than the true forest, and when disturbed gives a somewhat loud bark or shout.

Mouse deer, if it were not for the name, might well be classed with small game, as they are about the size of hares. They are usually to be seen about the banks of rivers, and edges of swamps and open places.

Wild pigs are of all sizes and several colours, some grey, some dirty white, and some red. It is by no means the biggest which have the largest tusks, but some of them have enormous ones. The whitish kind have heads considerably shorter than those of the ordinary wild pig, and have a thick layer of fat inside the skin. These are first-rate eating, and probably descended from a foreign ancestry. The best way to hunt pigs is with dogs and knives or spears, this is far better fun than shooting them. It is to be noticed, however, that it is rarely that the big ones or tuskers are brought to bay by the dogs, who are usually very clever little native ones, and have a very good idea of taking care of themselves. Bull dogs have often been imported at considerable expense and tried, but they very soon get killed or dreadfully mauled. With a pack of little native dogs, twelve or fifteen pigs have sometimes been bagged in the immediate neighbourhood of Sandakan, as the result of a three hours' hunt. The biggest number obtained in a day was eighteen.

The orangutan should not properly be spoken of as game at all; all the same, few people seeing one can resist the temptation of having a shot at it. There are two species, one large and one small; the largest one sometimes attains a height of four feet six inches, and has large black collops on each side of its face, which, added to the way it blows its throat out when excited, gives it a most ferocious, almost demoniacal, appearance, which stuffed specimens quite fail to convey. It is in reality very harmless, however, although it would no doubt exert its vast strength in self-defence if driven to do so. Anything like a full-grown

specimen of the large kind is hardly ever seen in captivity. The smaller species is easily tamed and is mild and pleasant, domesticated even; will take your hand and come for a walk without any thought of escape, and has no trace of vice, its only unpleasant feature being that, unaware of its own weight and strength, it is continually pulling things over and smashing them.

They have considerable attachment or affection for each other, and keep together in little families of father, mother, and child, in the forest, and if the female is menaced by any danger the male comes to her assistance. On one occasion that Mr. Pryer saw this occur, the men had fired at and wounded a female who was trying to help her child to escape, when the male came from some distance behind to assist her, and was shot too.

Bears occur but sparingly. They nearly always run away, but are invariably in a very bad temper at having to do so, roaring in an extremely aggravated way. The scientific name of the Bornean bear is *Helarctos euryspilus;* it is little if anything bigger than a large retriever, but has uncommonly large claws.

It is said that the tapir is found in Borneo, but no traces of it have been found in British North Borneo. The clouded tiger (*Felis macrocelis*), and the marbled leopard (*Leopardus marmoratus*), both occur, but are comparatively insignificant little brutes, besides being very rare.

In addition to the above, there are a host of smaller animals, of more interest to the naturalist than the sportsman. Of monkeys alone there are about a dozen different species, whilst of others there are civet cats, musangs, binturongs, otters, armadillos, porcupines, squirrels, ordinary and flying ones, insectivora, some of them handsome animals like large squirrels: the best known of them, the gymnura, like a large white rat with a pig's snout, tainting the whole neighbourhood with its strong rancid smell; the curious flying gymniopethecus; bats of many kinds, including the large fruit-eating so-called flying fox; the telledu or mydaus, which in Java and Sumatra is never found at a less elevation than five thousand feet, here occurs at sea-level; the slow loris, and many others.

The crocodile is undoubtedly the most ferocious of the wild

creatures, and fatal attacks by it are by no means uncommon. The people of one village, Sebongan, on the Kina Batangan, had to remove entirely away from the neighbourhood, as so many of them were carried off by crocodiles: knocked out of boats, or taken when bathing or getting water. On the Labuk river also there was a place where passing boats were frequently attacked. On one occasion two crocodiles made a simultaneous attack on a canoe with five men in it, knocked it over, and each one carried off a man. People of Malay race are so apathetic and so unfertile in resource that they seem unable to make any continued effort to combat such a state of things, but where Europeans settle, matters are soon changed. The erection of fish stakes, or keelongs as they are called, soon results in the capture of all the crocodiles in the neighbourhood.

The Sundyaks (Dusuns of the east coast) eat crocodiles, consequently there are very few left in the rivers they inhabit. Their mode of catching them is as follows: for bait a dead monkey or some similar animal is bound to a stick, all along the stick are tied lengths of fishing line, which are brought together about seven or eight feet off and made fast to the end of a rattan, which is some seventy or eighty feet in length. The bait is then thrown into the river at a likely place, the other end of the rattan being slightly secured, usually to an overhanging branch; the crocodile is thus able to take the bait, swim off with it in his mouth to some distance and there swallow it his leisure, not suspecting that anything is wrong. The Sundyaks come round next morning, and finding the rattan gone from its place, search along the river for it, until it is seen floating in the stream. This denotes that the reptile is below, slowly digesting the bait, which until now has remained, stick and all, lengthways in its stomach; the end of the rattan is seized from a canoe, and a smart jerk draws the stick "athwart ship," so to speak, in the stomach, and then a fine struggle ensues. As soon as possible the rattan is passed to the shore, or the canoe may get upset, but sooner or later the crocodile is hauled to the bank and killed; but if it is twelve feet in length or more, it takes a lot of men to land the brute, and the whole scene is most exciting.

Large pythons are occasionally seen in the forest; gutta hunters have sometimes spoken of some they have met which could not have been less than from twenty to thirty feet long,

and a native headman had a story of one which must have been even longer; there is no record of anybody being injured by a large (or any other) snake in North Borneo.

Snakes are not at all common, and poisonous ones form a very small percentage of those which are seen. Monitor lizards sometimes occur near chicken houses, but though somewhat formidable-looking, are quite harmless.

Small game can be hardly said to exist, Argus pheasants, fireback pheasants and partridges are not uncommon in the forest, but never rise, and beyond a few pigeons there is no sport for the shot-gun.

Fishing offers a large field for future development, fish of all kinds being most abundant. It is customary when travelling in a steam launch to let out a strong line astern, the last 40 feet or so of it being stout brass wire terminating in a strong large hook; the only bait is a piece of white rag; a hitch is taken in the inboard part of the line and tied with string, with a bell attached; when a fish takes the hook, the jerk breaks the string, and rings the bell; there is an immediate rush of everybody near, and it frequently takes three men if not more to haul in the prize, usually an ikan tingirri, a fine large pike-like fish, very good eating; dolphins and even sword-fish are sometimes caught, while it not unfrequently happens that some monster breaks the line altogether.

CHAPTER IX.

EUROPEAN LIFE.

IN North Borneo neither religion nor education is neglected; there are two Missions, one Protestant and one Roman Catholic; the former, which is supported by the Society for the Propagation of the Gospel in Foreign Parts, and the Protestant Community, has a church and school at Sandakan, with a branch at Kudat. These are well attended by the European residents and by Chinese Christians.

The Roman Catholic Mission has several priests throughout the country; its head-quarters are at Sandakan. Amongst the natives, particularly the Dusuns, it has made many converts, and the schools conducted by the priests are much appreciated by all classes.

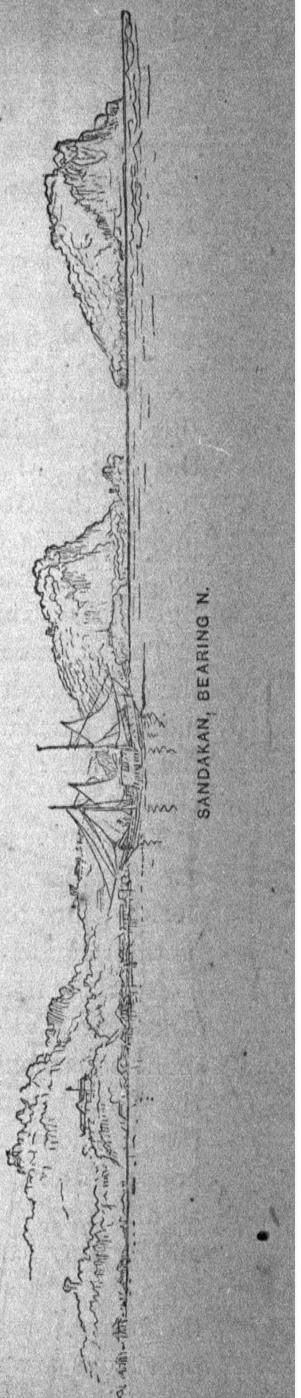
The Chinese have their joss houses and the Mahomedans the mosques; native priests are paid by the Government, and it is their duty to attend to the marriage rites and customs as well as the religion and education of the Mahomedans.

At Sandakan the club, hotel, bank and insurance agencies, European and Chinese stores, public market, hospital, Government house, offices, gaol, barracks, saw mills, tennis grounds and the numerous neat suburban bungalows around, bespeak civilization, confidence and progress. Kudat has also its hotel or rest-house, with agencies, stores, shops and bungalows which supply all the wants of the mixed community. At Mempakol, Gaya and Silam there are no proper European stores, but in those kept by Chinese will be found everything the native requires in the form of food, clothing, iron, brass or ornaments; tinned provisions are also kept. With regard to fresh provisions, beef is usually to be had twice a week, and mutton is procurable by steamers from Hong Kong; of pork there is a plentiful daily

supply. The seas abound with fish of great variety and excellent quality, and there is always a plentiful and cheap supply at all stations. Fowls are, however, the chief article of food for Europeans, and large numbers are imported. Natives and Chinese are beginning to pay attention to rearing them; ducks and geese are also kept. The towns and stations are well supplied with vegetables from the numerous Chinese gardens round about. The following are some of the varieties which grow luxuriantly: Yams of various kinds, sweet potatoes, kladi (a caladium), tomatoes, bringals, radishes, Chinese lettuces, spinach and cabbage, melons, pumpkins, vegetable marrows, chillies, &c.; good cabbages and potatoes are imported from China and Java.

The climate is considered healthy, the nights being generally cool, rendering a blanket desirable; the mornings and evenings are delightful, with a land or sea breeze blowing. No expensive or particular outfit is necessary; white clothes, usually made of drill or duck, are worn all the year round; these can be made by Chinese tailors in North Borneo much cheaper than in England; a few light tweed or flannel suits are necessary; these, with a few Indian gauze or fine merino undershirts, a few pairs of canvas or brown leather shoes, a good light waterproof coat, pith helmet and an umbrella will be found sufficient.

Almost every European possesses a pony; these are brought over from the Sulu Islands, they are good and cheap, the price being from $20 to $60 each. Australian horses are obtainable in Singapore, and a few have been imported. Jin-rikshaws, or chairs on wheels, are the only carriages as yet, but the latter will doubtless be introduced as the roads are extended and improved.



SANDAKAN, BEARING N.

Bullocks and buffaloes are used as draught animals on estates and roads.

Communication with Europe takes one month by letter; from Hong Kong and Singapore telegrams can be sent to all parts of the world. Some six steamers trade between North Borneo and Singapore and two run to Hong Kong; each can perform a round trip, calling at ports, in about sixteen days, but the distance from North Borneo to Singapore is only four days by steamer. From Australia the distance is only 1500 miles and only a few hours out of the direct track of vessels trading between the Northern ports and China; these vessels only want sufficient encouragement to call at Sandakan and Kudat.

Some twenty launches (three of which belong to Government) and numerous trading crafts keep up communication between the stations, estates and rivers. The river system is incomparable and forms ready-made permanent highways to and from the interior.

CHARTER OF THE BRITISH NORTH BORNEO COMPANY.

VICTORIA, by the grace of God, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith.

To all to whom these presents shall come Greeting.

WHEREAS an Humble Petition has been presented to Us in Our Council by Alfred Dent, of 11, Old Broad Street, in the City of London, Merchant; the British North Borneo Provisional Association, Limited; Sir Rutherford Alcock, of 14, Great Queen Street, in the City of Westminster, Knight Commander of Our Most Honourable Order of the Bath; Richard Biddulph Martin, of 68, Lombard Street, in the City of London, Banker, a Member of the Commons House of Parliament; Richard Charles Mayne, Companion of Our Most Honourable Order of the Bath, a Rear-Admiral in our Navy; and William Henry Macleod Read, of 25, Durham Terrace, in the County of Middlesex, Merchant.

And whereas the said Petition states (among other things) to the effect that on the 29th day of December, 1877, the Sultan of Brunei, in the Island of Borneo, made and issued to the Petitioner Alfred Dent and another, or one of them, three several grants of territories, lands, and islands therein mentioned, and a commission.

And whereas the said Petition further states that by the first of the grants aforesaid the Sultan of Brunei granted to the grantees co-jointly their heirs associates successors or assigns all the territory and land belonging to the Sultan on the West Coast of Borneo comprising Gaya Bay from Gaya Head to Loutut Point including Sapangar Bay and Gaya Bay and Sapangar Island and Gaya Island and all the other islands within the limits of the harbour and within three marine leagues of the coast, likewise the province and territory of Pappar adjoining the province of Benoni and belonging to the Sultan as his private property; and in consideration of that grant the grantees promised to pay severally and co-jointly to the Sultan his heirs or successors the sum of four thousand dollars per annum; and by that grant the said territories were from the date thereof declared vested in the grantees their heirs associates successors or assigns for so long as they should choose and desire to hold them; provided however that the Sultan should have the right to resume the control and government of the said territories if the above-mentioned annual compensation should not have been paid for three successive years.

And whereas the said Petition further states that by the second of the grants aforesaid the Sultan of Brunei granted to the grantees co-jointly their heirs associates successors or assigns all the territories belonging to the Sultan from the Sulaman River on the north-west coast of Borneo unto the River Paitan on the north-east coast of the island containing twenty-one states together with the island of Banguey and all the other islands within three marine leagues of the coast for their own exclusive uses and purposes; and in consideration of that grant the grantees promised to pay severally and co-jointly to the Sultan his heirs or successors the sum of six thousand dollars per annum; and by that grant the said territories were from the date thereof declared vested in the grantees their heirs associates successors or assigns for so long as they should choose to hold them; provided however that the Sultan should have the right to resume the control and government of the said territories if the above-mentioned annual compensation should not have been paid for three successive years.

And whereas the said Petition further states that by the third of the grants aforesaid the Sultan of Brunei granted to the grantees their heirs associates successors or assigns all the following territories belonging to the kingdom of Brunei and comprising the States of Paitan, Sugut, Bangaya, Labuk, Sandakan, Kina Batangan, Mumiang, and all the territories as far as the Sibuco River with all the islands within three leagues of the coast belonging thereto for their own exclusive and absolute uses and purposes; and in consideration of that grant the grantees promised to pay co-jointly and severally as compensation the sum of two thousand dollars per annum; and from that date the said territories were thereby declared vested in the grantees their heirs associates successors and assigns for so long as they should choose or desire to hold them; provided however that the Sultan should have the right to resume the control and government of the said territories if the above-mentioned annual compensation should not have been paid for three successive years.

And whereas the said Petition further states that by the commission aforesaid, after reciting to the effect that the Sultan of Brunei had seen fit to grant to his trusty and well-beloved friends the grantees certain portions of the dominions owned by him comprising the entire northern portion of the island of Borneo from the Sulaman River on the west coast to Maludu Bay and to the River Paitan and thence the entire eastern coast as far as the Sibuco River, comprising the States of Paitan, Sugut, Bangayan, Labuk, Sandakan, Kina Batangan, and Mumiang, and other lands as far as Sibuco River furthermore the provinces of Kimanis and Benoni, the province of Pappar, and the territory of Gaya Bay and Sapangar Bay with all the land and islands belonging thereto and likewise the island of Banguey for certain considerations between them agreed, and that one of the grantees therein in that behalf named was the chief and only authorized representative of his company in Borneo; it was declared that the Sultan had nominated and appointed and thereby did nominate and appoint the same grantee supreme ruler of the above-named territories with the title of Maharajah of Sabah (North Borneo) and Rajah of Gaya and Sandakan with power of life and death over the inhabitants

with all the absolute rights vested in the Sultan over the soil of the country and the right to dispose of the same as well as the rights over the productions of the country whether mineral vegetable or animal with the rights of making laws coining money creating an army and navy levying customs rates on home and foreign trade and shipping and other dues and taxes on the inhabitants as to him might seem good or expedient together with all other powers and rights usually exercised by and belonging to sovereign rulers and which the Sultan thereby delegated to him of his own free will; and the Sultan called upon all foreign nations with whom he had formed friendly treaties and alliances to acknowledge the said Maharajah as the Sultan himself in the said territories and to respect his authority therein; and in case of the death or retirement from office of the said Maharajah then his duly appointed successor in the office of supreme ruler and governor-in-chief of the Company's territories in Borneo should likewise succeed to the office and title of Maharajah of Sabah and Rajah of Gaya and Sandakan and all the powers above enumerated to be vested in him.

And whereas the said Petition further states that on the same day the Pangeran Tumongong (Chief Minister) of Brunei made to the same two persons their heirs associates successors or assigns a grant of the provinces of Kimanis and Benoni on the north-west coast of Borneo with all the islands belonging thereto within three marine leagues of the coast the said territories belonging to him as his private property to hold for their own exclusive and absolute uses and purposes; and in consideration of that grant the grantees promised to pay as compensation to the Pangeran Tumongong his heirs or successors the sum of three thousand dollars per annum; and the said territories were thereby declared vested in the grantees their heirs associates successors or assigns for so long as they should choose or desire to hold them; and they further promised to protect the Pangeran Tumongong with kindness.

And whereas the said Petition further states that on the 22nd day of January, 1878, the Sultan of Sooloo and the dependencies thereof (in the said Petition and in this Our Charter

referred to as the Sultan of Sooloo) made and issued to the same two persons, or one of them, a grant of his rights and powers over territories lands states and islands therein mentioned, and a commission.

And whereas the said Petition further states that by the last-mentioned grant the Sultan of Sooloo on behalf of himself his heirs and successors and with the consent and advice of the Datoos in Council assembled granted and ceded of his own free and sovereign will to the grantees as representatives of a British Company co-jointly their heirs associates successors and assigns for ever and in perpetuity all the rights and powers belonging to the Sultan over all the territories and lands being tributary to him on the mainland of the island of Borneo commencing from the Pandassan River on the north-west coast and extending along the whole east coast as far as the Sibuco River in the south and comprising amongst others the States of Paitan, Sugut, Bangaya, Labuk, Sandakan, Kina Batangan, Mumiang and all the other territories and states to the southward thereof bordering on Darvel Bay and as far as the Sibuco River with all the islands within three marine leagues of the coast; and in consideration of that grant the grantees promised to pay as compensation to the Sultan his heirs or successors the sum of five thousand dollars per annum; and the said territories were thereby declared vested in the grantees co-jointly their heirs associates successors or assigns for as long as they should choose or desire to hold them; provided however that the rights and privileges conferred by that grant should never be transferred to any other nation or company of foreign nationality without the sanction of Our Government first being obtained; and in case any dispute should arise between the Sultan his heirs or successors and the grantee therein in that behalf specified or his Company the matter should be submitted to Our Consul-General for Borneo; and that grantee on behalf of himself and his Company further promised to assist the Sultan his heirs or successors with his best counsel and advice whenever the Sultan might stand in need of the same.

And whereas the said Petition further states that by the last-mentioned commission, after reciting to the effect that

the Sultan of Sooloo had seen fit to grant unto his trusty and well-beloved friends the grantees certain portions of the dominions owned by the Sultan comprising all the lands on the north and east coast of the Island of Borneo from the Pandassan River on the north-west to the Sibuco River on the east coast including amongst others the states of Paitan, Sugut, Bangaya, Labuk, Sandakan, Kina Batangan, and Mumiang, and all the lands and territories in Darvel Bay as far as the Sibuco River together with all the islands belonging thereto for certain considerations between them agreed, and that one of the grantees therein in that behalf named was the chief and only authorized representative of his Company in Borneo, it was declared that the Sultan of Sooloo had nominated and appointed and thereby did nominate and appoint the same grantee supreme and independent ruler of the above-named territories with the title of Datu Bandahara and Rajah of Sandakan with absolute power of life and death over the inhabitants of the country with all the absolute rights of property over the soil of the country vested in the Sultan and the right to dispose of the same as well as the rights over the productions of the country whether mineral vegetable or animal, with the rights of making laws coining money creating an army and navy levying custom dues on home and foreign trade and shipping and other dues and taxes on the inhabitants as to him might seem good or expedient together with all other powers and rights usually exercised by and belonging to sovereign rulers and which the Sultan thereby delegated to him of his own free and sovereign will; and the Sultan called upon all foreign nations with whom he had formed friendly treaties or alliances, and he commanded all the Datoos Nobles Governors Chiefs and People owing allegiance to him in the said territories, to receive and acknowledge the said Datu Bandahara as supreme ruler over the said States and to obey his commands and respect his authority therein as the Sultan's own; and in case of the death or retirement from office of the said Datu Bandahara then his duly appointed successor in the office of supreme ruler and governor-in-chief of the Company's territories in Borneo should likewise if appointed thereto by the Company succeed to the title of Datu Bandahara and Rajah of Sandakan and all the powers above enumerated be vested in him.

And whereas the said Petition further states that all the interests and powers of the grantees under the several grants and commissions aforesaid came to be vested in the Petitioner Alfred Dent.

And whereas the said Petition further states that the Petitioner Alfred Dent and his associates from time to time of necessity expended large sums of money and made great exertions in and about procuring the grants and commissions aforesaid and putting them into use and discharging the obligations arising thereunder.

And whereas the said Petition further states that the Petitioner The British North Borneo Provisional Association, Limited, consists of persons who lately agreed to join together for the temporary purposes of acting as intermediaries between the Petitioner Alfred Dent, on the one hand, and a Company to be incorporated (if We should so think fit) by Royal Charter, on the other hand, and of carrying on until the grant of such a Charter the management of the affairs arising under the grants and commissions aforesaid, and who, for convenience of common action and for limitation of liability, have incorporated themselves under the general Statutes relating to companies, that Provisional Association having for its objects as declared by its Memorandum of Association (among others) the following (that is to say):

> To purchase from Alfred Dent his interest and powers in over and affecting territories, lands, and property in Borneo, and islands lying near thereto, including Labuan.
>
> To acquire by purchase or other lawful means other interests and powers, in over and affecting the same territories, lands, and property, and interests and powers in over or affecting other territories, lands, and property in the region aforesaid.
>
> To obtain from the Crown a charter incorporating and regulating a Company constituted with the like objects as aforesaid, or other objects relating to any territories, lands, and property as aforesaid.

To transfer to the Company so incorporated any interests and powers as aforesaid for the time being vested in the Association.

And whereas the said Petition further states that all the interests and powers of the Petitioner Alfred Dent under the several grants and commissions aforesaid have been transferred to and are now vested in the Petitioner, the British North Borneo Provisional Association, Limited.

And whereas the said Petition further states that that Association will, in accordance with its provisional character indicated in its name, and in pursuance of the express provisions of its Articles of Association, be voluntarily wound up in manner provided by Statute, as soon as a sale or disposal of its territories, lands, and property to a Company to be incorporated (if We should so think fit) by Royal Charter has been effected, and will, after payment and discharge of its debts and liabilities, and after distribution among its members of the proceeds of such sale or disposal and of any other its assets, be dissolved.

And whereas the said Petition further states that the Petitioners Sir Rutherford Alcock, Richard Biddulph Martin, Richard Charles Mayne, and William Henry Macleod Read are, with the Petitioner Alfred Dent, the Directors of that Association.

And whereas the said Petition represents that the success of the enterprise in which the Petitioners are engaged as aforesaid would be greatly advanced if it should seem fit to Us to incorporate by Our Royal Charter a Company to carry on that enterprise.

And whereas the said Petition further represents that such a Chartered Company would render to Our Dominions services of much value, and would promote the commercial prosperity of many of Our subjects.

And whereas the said Petition further represents that the Petitioners are in a position to raise the capital requisite for the

proper and effective conduct of the enterprise aforesaid, and they thereby undertake to do so on obtaining the grant of such a Charter.

And whereas by the said Petition the Petitioners therefore most humbly pray that We will be graciously pleased to grant Our Royal Charter for incorporating a Company to carry on the enterprise aforesaid by such name and with such powers and privileges and subject to such conditions as to Us may seem meet.

NOW THEREFORE WE, having taken the said Petition into Our Royal consideration in Our Council, and being satisfied that the intentions of the Petitioners are praiseworthy and deserve encouragement, and that the enterprise in the Petition described may be productive of much benefit to Our Dominions and to many of Our subjects, by Our Prerogative Royal and of Our especial grace certain knowledge and mere motion have constituted erected and incorporated, and by this our Our Charter for Us and Our Heirs and Royal Successors do constitute erect and incorporate, into one body politic and corporate, by the name of THE BRITISH NORTH BORNEO COMPANY, the said Alfred Dent, Sir Rutherford Alcock, Richard Biddulph Martin, Richard Charles Mayne, and William Henry Macleod Read, and such others persons and such bodies as from time to time become and are members of that body, with perpetual succession, and a common seal, with power to alter or renew the same at discretion, and with the further authorities powers and privileges conferred and subject to the conditions imposed by this Our Charter; and We do hereby accordingly will, ordain and declare as follows (that is to say):

Transfer to Company of Grants and Commissions.

1.—The said British North Borneo Company (in this Our Charter referred to as the Company) is hereby authorized and empowered to acquire by purchase or other lawful means from the British North Borneo Provisional Association, Limited, the full benefit of the several grants and commissions aforesaid, or any of them, as the same is vested in that Association, and all

interests and powers of that Association thereunder, and all interests and powers vested in that Association in over or affecting the territories lands and property comprised in those several grants, or in over or affecting any territories lands or property in Borneo or in any island lying near thereto, including Labuan, and to hold use enjoy and exercise the same for the purposes and on the terms of this Our Charter.

Fulfilment by Company of Promises of Grantees.

2.—The Company, as representing the original grantees under the several grants aforesaid, shall be bound by and shall fulfil the promises of payment and other promises therein made, subject to any subsequent agreement affecting those promises.

British character of Company.

3.—The Company shall always be and remain British in character and domicile, and shall have its principal office in England ; and all the members of its Court of Directors or other governing body and its principal representative in Borneo shall always be natural-born British subjects or persons who have been naturalized as British subjects by or under an Act of the Parliament of Our United Kingdom.

Restriction on Transfer by Company.

4.—The Company shall not have power to transfer, wholly or in part, the benefit of the grants and commissions aforesaid or any of them except with the consent of one of Our Principal Secretaries of State (in this Our Charter referred to as Our Secretary of State).

Differences with Sultans.

5.—In case at any time any difference arises between the Sultan of Brunei or the Sultan of Sooloo and the Company, that difference shall on the part of the Company be submitted to the decision of Our Secretary of State, if he is willing to undertake the decision thereof.

Foreign Powers.

6.—If at any time Our Secretary of State thinks fit to dissent from or object to any of the dealings of the Company with any Foreign Power, and to make to the Company any suggestion founded on that dissent or objection, the Company shall act in accordance therewith.

Slavery.

7.—The Company shall to the best of its power discourage, and, as far as may be practicable, abolish by degrees, any system of domestic servitude existing among the tribes of the coast or interior of Borneo; and no foreigner, whether European, Chinese, or other, shall be allowed to own slaves of any kind in the Company's territories.

Religions of Inhabitants.

8.—The Company as such, or its officers as such, shall not in any way interfere with the religion of any class or tribe of the people of Borneo, or of any of the inhabitants thereof.

Administration of Justice to Inhabitants.

9.—In the administration of justice by the Company to the people of Borneo, or to any of the inhabitants thereof, careful regard shall always be had to the customs and laws of the class or tribe or nation to which the parties respectively belong, especially with respect to the holding possession transfer and disposition of lands and goods, and testate or intestate succession thereto, and marriage divorce and legitimacy, and other rights of property and personal rights.

Treatment of Inhabitants, generally.

10.—If at any time Our Secretary of State thinks fit to dissent from or object to any part of the proceedings or system of the Company relative to the people of Borneo, or to any of the inhabitants thereof, in respect of slavery or religion or the administration of justice or other matter, and to make to the Company any suggestion founded on that dissent or objection, the Company shall act in accordance therewith.

Jurisdiction over British Subjects and in Mixed Cases.

11.—In case at any time We think fit to make provision by Order in Our Council for the exercise and regulation of Our extra-territorial jurisdiction and authority in Borneo, and to appoint any of the Company's officers to discharge judicial or other functions thereunder in Our name, then and so long the Company shall provide all court-houses and establishments necessary or proper in that behalf, and bear all expenses of the exercise of the jurisdiction or authority which those officers are so appointed to exercise.

Facilities for British National Ships.

12.—The Company shall freely afford all facilities requisite for Our ships in the harbours of the Company.

Appointment of Company's principal representative.

13.—The appointment by the Company of the Company's principal representative in Borneo shall always be subject to the approval of Our Secretary of State.

Flag.

14.—The Company may hoist and use on its buildings and elsewhere in Borneo and on its vessels such distinctive flag indicating the British character of the Company as Our Secretary of State and the Lords Commissioners of the Admiralty from time to time approve.

General Powers of Company.

15.—The Company is hereby further authorized and empowered:

(*i.*) To acquire and take by purchase cession or other lawful means, other interests or powers in, over, or affecting the territories, lands, or property comprised in the several grants aforesaid, or any interests or powers whatever in over or affecting other territories, lands, or property in the region aforesaid; and to hold, use, enjoy, and exercise

the same for the purposes and on the terms of this Our Charter.

(*ii.*) To improve, develop, clear, plant and cultivate any territories and lands comprised in the several grants aforesaid, or otherwise acquired under this Our Charter.

(*iii.*) To make and maintain therein roads, harbours, railways, telegraphs, and other public and other works, and carry on therein mining and other industries.

(*iv.*) To settle any such territories and lands as aforesaid and to aid and promote immigration into the same.

(*v.*) To grant any lands therein for terms or in perpetuity absolutely or by way of mortgage or otherwise.

(*vi.*) To make therein exclusive or other concessions of mining forestal or other rights.

(*vii.*) To farm out for revenue purposes the right to sell in the Company's territories spirits tobacco opium salt or other commodities.

(*viii.*) To make loans or contributions of money or money's worth for promoting any of the objects of the Company.

(*ix.*) To acquire and hold or charter or otherwise deal with steam-vessels and other vessels.

(*x.*) To acquire and hold any personal property.

(*xi.*) To deal in merchandise, the growth produce or manufacture of the Company's territories, or other merchandise.

(*xii.*) To carry on any lawful commerce trade or dealing whatever in connection with any of the objects of the Company.

(*xiii.*) To establish and maintain agencies in Our Colonies and Possessions and elsewhere.

(*xiv.*) To act as agent in the region aforesaid for any other Company or body or any person.

(*xv.*) To sue and be sued by the Company's name of

incorporation as well in Our Courts in Our United Kingdom, or in Our Courts in Our Colonies or Possessions, or in Our Courts in foreign countries, as elsewhere.

(*xvi.*) To take and hold, without licence in mortmain or other authority than this Our Charter, messuages and hereditaments in England and in any of Our Colonies or Possessions and elsewhere, convenient for carrying on the management of the affairs of the Company, and to dispose from time to time of any such messuage and hereditaments when not required for that purpose.

(*xvii.*) To do all lawful things incidental or conducive to the exercise or enjoyment of the authorities and powers of the Company in this Our Charter expressed or referred to or any of them.

Questions of Title.

16.—If at any time Our Secretary of State thinks fit to object to the exercise by the Company of any authority or power within any part of the territories comprised in the several grants aforesaid, or otherwise acquired under this Our Charter, on the ground of there being an adverse claim to that part, the Company shall defer to that objection.

Prohibition of Monopoly.

17.—Nothing in this Our Charter shall be deemed to authorize the Company to set up or grant any general monopoly of trade; and subject only to customs duties imposed for revenue purposes, and to restrictions or importation similar in character to those applicable in Our United Kingdom, trade with the Company's territories shall be free.

Deed of Settlement.

18.—Within one year after the date of this Our Charter there shall be executed by the members of the Company for the time being a Deed of Settlement providing for—

(*i.*) The amount and division of the capital of the Company and the calls to be made in respect thereof.

(*ii.*) The registration of members of the Company.

(*iii.*) The preparation and the circulation among the members of annual accounts.

(*iv.*) The audit of those accounts by independent auditors.

(*v.*) The making of Bye-laws.

(*vi.*) The making and using of official seals of the Company.

(*vii.*) The winding-up (in case of need) of the Company's affairs.

(*viii.*) Any other matters usual or proper to be provided for in respect of a Chartered Company.

19.—The Deed of Settlement shall before the execution thereof be submitted to and approved by the Lords of Our Council, and a certificate of their approval thereof signed by the Clerk of Our Council shall be indorsed on this Our Charter and on the Deed of Settlement.

20.—The provisions of the Deed of Settlement may be from time to time varied or added to by a Supplementary Deed made and executed in such manner and subject to such conditions as the Deed of Settlement prescribes.

AND WE do further will ordain and declare that this Our Charter shall be acknowledged by Our Governors, and Our Naval and Military Officers, and Our Consuls, and Our other Officers, in Our Colonies and Possessions, and on the High Seas, and elsewhere, and they shall severally give full force and effect to this Our Charter, and shall recognise and be in all lawful things aiding to the Company and its officers.

AND WE do further will ordain and declare that this Our Charter shall be taken construed and adjudged in the most favourable and beneficial sense for and to the best advantage of the Company as well in Our Courts in Our United Kingdom, and in Our Courts in Our Colonies or Possessions, and in Our

Courts in foreign countries, as elsewhere, notwithstanding that there may appear to be in this Our Charter any non-recital, mis-recital, uncertainty or imperfection.

AND WE do lastly will ordain and declare that in case at any time it is made to appear to Us in Our Council that the Company has failed to comply with any material condition by this Our Charter prescribed, it shall be lawful for Us, Our Heirs and Successors, and We do hereby expressly reserve and take to Ourselves Our Heirs and Successors the right and power, by writing under the Great Seal of Our United Kingdom, to revoke this Our Charter, without prejudice to any power to repeal the same by law belonging to Us or Them, or to any of Our Courts Ministers or Officers, independently of this present declaration and reservation.

In witness whereof We. have caused these Our letters to be made patent.

Witness Ourselves at Our Palace at Westminster, the first day of November, in the forty-fifth year of Our reign.

BY HER MAJESTY'S COMMAND.

CARDEW.

TERMS OF PROTECTORATE.

Title.

AGREEMENT BETWEEN HER MAJESTY'S GOVERNMENT AND THE BRITISH NORTH BORNEO COMPANY.

Preamble.

WHEREAS by virtue of certain grants and commissions from the Sultans, Chiefs, and Rulers of the territories in North Borneo hereinafter mentioned and by other lawful means, all rights of sovereignty over the said territories are vested in the British North Borneo Company:

And whereas by Her Majesty's Royal Charter of Incorporation, bearing date the 1st day of November, 1881, the Company was authorized and empowered to assume the Government of the said territories subject to the conditions in the said Charter contained:

And whereas the said territories are now governed and administered by the Company as an independent State, hereinafter referred to as "the State of North Borneo:"

And whereas the Company have represented to Her Majesty's Government the desire of that State to be placed under the protection of Her Majesty the Queen, under the conditions hereinafter mentioned; it is hereby agreed and declared as follows:—

ARTICLE I.

Description of Territories.

The State of North Borneo comprises the territories specified in the said Royal Charter, and such other territories as the

Company have acquired, or may hereafter acquire, under the provisions of Article XV. of the said Charter.

It is divided into nine provinces, namely:—

Province Alcock;
Province Cunliffe;
Province Dent;
Province Dewhurst;
Province Elphinstone;
Province Keppel;
Province Martin;
Province Mayne;
Province Myburgh.

Article II.

North Borneo to be a "Protected Independent State."

The State of North Borneo shall continue to be governed and administered as an independent State by the Company in conformity with the provisions of the said Charter, under the protection of Great Britain; but such protection shall confer no right on Her Majesty's Government to interfere with the internal administration of that State further than is provided therein or by the Charter of the Company.

Article III.

Relations with Foreign States.

The relations between the State of North Borneo and all foreign States, including the State of Brunei and of Sarawak, shall be conducted by Her Majesty's Government, or in accordance with its direction; and if any difference should arise between the Government of North Borneo and that of any other State, the Company, as representing the State of North Borneo, agrees to abide by the decision of Her Majesty's Government, and to take all necessary measures to give effect thereto.

Article IV.

British Consular Officers.

Her Majesty's Government shall have the right to establish British Consular officers in any part of the said territories, who shall receive exequators in the name of the Government of

North Borneo. They shall enjoy whatever privileges are usually granted to Consular officers, and they shall be entitled to hoist the British flag over their residences and public offices.

ARTICLE V.

National and Most-favoured Nation Treatment.

British subjects, commerce, and shipping shall enjoy the same rights, privileges, and advantages as the subjects, commerce and shipping of the most-favoured nation, as well as any other rights, privileges and advantages which may be enjoyed by the subjects; commerce, and shipping of the State of North Borneo.

ARTICLE VI.

Alienation of Territory.

No cession or other alienation of any part of the territory of the State of North Borneo shall be made by its Government to any foreign State, or the subject or citizens thereof, without the consent of Her Majesty's Government; but this restriction shall not apply to ordinary grants or leases of lands or houses to private individuals for purposes of residence, agriculture, commerce, or other business.

In witness whereof the Undersigned have signed the present Agreement in duplicate, and have affixed thereto their seals.

Done at London, the 12th day of May, 1888.

(L.S.) (Signed) SALISBURY.

(On behalf of the British North Borneo Company),

(L.S.) (Signed) RUTHERFORD ALCOCK,
Chairman.

Title.

AGREEMENT BETWEEN HER MAJESTY'S GOVERNMENT AND RAJAH BROOKE.

Preamble.

WHEREAS Charles Brooke, Esq., Rajah and lawful Ruler of the State of Sarawak, in the Island of Borneo, has represented to Her Majesty's Government the desire of that State to be

placed under the protection of Her Majesty the Queen, under the conditions hereinafter mentioned; it is hereby agreed and declared as follows:—

ARTICLE I.

Sarawak to be an Independent Protected State.

The State of Sarawak shall continue to be governed and administered by the said Rajah Brooke and his successors as an independent State under the protection of Great Britain; but such protection shall confer no right on Her Majesty's Government to interfere with the internal administration of that State further than is herein provided.

ARTICLE II.

Question of Succession.

In case any question should hereafter arise respecting the right of succession to the present or any future Ruler of Sarawak, such question shall be referred to Her Majesty's Government for decision.

ARTICLE III.

Relations with Foreign States.

The relations between the State of Sarawak and all foreign States, including the States of Brunei and North Borneo, shall be conducted by Her Majesty's Government, or in accordance with its directions; and if any difference should arise between the Government of Sarawak and that of any other State, the Government of Sarawak agrees to abide by the decision of Her Majesty's Government, and to take all necessary measures to give effect thereto.

ARTICLE IV.

British Consular Officers.

Her Majesty's Government shall have the right to establish British Consular officers in any part of the State of Sarawak, who shall receive exequators in the name of the Government of Sarawak. They shall enjoy whatever privileges are usually granted to the Consular officers, and shall be entitled to hoist the British flag over their residences and public offices.

ARTICLE V.

National and Most-favoured Nation Treatment.

British subjects, commerce, and shipping shall enjoy the same rights, privileges, and advantages as the subjects, commerce, and shipping of the most-favoured nation, as well as any other rights, privileges, and advantages which may be enjoyed by the subjects, commerce, and shipping of the State of Sarawak.

ARTICLE VI.

Alienation of Territory.

No cession or other alienation of any part of the territory of the State of Sarawak shall be made by the Rajah or his successors to any foreign State, or the subjects or citizens thereof, without the consent of Her Majesty's Government; but this restriction shall not apply to ordinary grants or leases of lands or houses to private individuals for purposes of residence, agriculture, commerce, or other business.

(L.S.) (Signed) SALISBURY.

September 5, 1888.

Given under my hand and seal, this 14th day of June, in the year 1888.

(L.S.) (Signed) C. BROOKE,
Rajah.

Title.

AGREEMENT BETWEEN HER MAJESTY'S GOVERNMENT AND THE SULTAN OF BRUNEI FOR THE ESTABLISHMENT OF A BRITISH PROTECTORATE OVER THE STATE OF BRUNEI.

Preamble.

WHEREAS Sultan Hashim Jalilul Alam Akamadin, Sultan and lawful Ruler of the State of Brunei, in the Island of Borneo, has represented to Her Britannic Majesty's Government the desire of that State to be placed under the protection of Her Majesty the Queen, under the condition hereinafter mentioned; it is hereby declared and agreed as follows:—

ARTICLE I.

Brunei to be an Independent Protected State.

The State of Brunei shall continue to be governed and administered by the said Sultan Hashim Jalilul Alam Akamadin and his successors as an independent State, under the protection of Great Britain; but such protection shall confer no right on Her Majesty's Government to interfere with the internal administration of that State further than is herein provided.

ARTICLE II.

Question of Succession.

In case any question should hereinafter arise respecting the right of succession to the present or any future Ruler of Brunei, such question shall be referred to Her Majesty's Government for decision.

ARTICLE III.

Relations with Foreign States.

The relations between the State of Brunei and all foreign States, including the States of Sarawak and North Borneo, shall be conducted by Her Majesty's Government, and all communications shall be carried on exclusively through Her Majesty's Government, or in accordance with its directions; and if any difference should arise between the Sultan of Brunei and the Government of any other State, the Sultan of Brunei agrees to abide by the decision of Her Majesty's Government, and to take all necessary measures to give effect thereto.

ARTICLE IV.

British Consular Officers.

Her Majesty's Government shall have the right to establish British Consular officers in any part of the State of Brunei, who shall receive exequators in the name of the Sultan of Brunei. They shall enjoy whatever privileges are usually granted to Consular officers, and they shall be entitled to hoist the British flag over their residences and public offices.

ARTICLE V.

National and Most-favoured Nation Treatment.

British subjects, commerce, and shipping shall, in addition to the rights, privileges, and advantages now secured to them by Treaty, be entitled to participate in any other rights, privileges, and advantages which may be enjoyed by the subjects, commerce, and shipping of the State of Brunei.

ARTICLE VI.

Alienation of Territory.

No cession or other alienation of any part of the territory of the State of Brunei shall be made by the Sultan to any foreign State, or the subjects or citizens thereof, without the consent of Her Majesty's Government; but this restriction shall not apply to ordinary grants or leases of lands or houses to private individuals for purposes of residence, agriculture, commerce, or other business.

ARTICLE VII.

Ex-territorial Jurisdiction.

It is agreed that full and exclusive jurisdiction, civil and criminal, over British subjects and their property in the State of Brunei, is reserved to Her Britannic Majesty, to be exercised by such Consular or other officers as Her Majesty shall appoint for that purpose.

The same jurisdiction is likewise reserved to Her Majesty in the State of Brunei over foreign subjects enjoying British protection; and the said jurisdiction may likewise be exercised in cases between British or British protected subjects and the subjects of a third Power, with the consent of their respective Governments.

In mixed civil cases arising between British and British-protected subjects and the subjects of the Sultan, the trial shall take place in the Court of the defendant's nationality; but an officer appointed by the Government of the plaintiff's nationality shall be entitled to be present at, and to take part in, the proceedings, but shall have no voice in the decision.

ARTICLE VIII.

All the provisions of existing Treaties, Conventions, and Declarations between Her Majesty the Queen and the Sultan of Brunei are hereby confirmed and maintained except in so far as any of them may conflict with the present Agreement.

In witness whereof His Highness the said Sultan of Brunei hath hereunto attached his seal at the Palace, in the city of Brunei, on the 17th day of September, in the year of Our Lord 1888, being the 11th day of the month of Moharram, in the year 1306 of the Mohammedan era; and Sir Hugh Low, K.C.M.G., British Resident at Perak, in charge of a Special Mission to His Highness the Sultan, hath, on the part of Her Majesty's Government, signed this Agreement in the presence of witnesses.

(Seal of His Highness the Sultan of Brunei.)

(Signed) HUGH LOW.

Witness to the Seal of His Highness the Sultan of Brunei,

(Signed in Chinese by the Datoh Temenggong Kim Swee.)

Witness to the Signature of Sir Hugh Low, K.C.M.G.,

(Signed) L. H. WISE.

September 17, 1888.

THE LAND REGULATIONS OF BRITISH NORTH BORNEO.

Special Regulations for the Leasing of uncultivated Lands in Lots of 100 *Acres and upwards in extent.*

Approved by the Court of Directors of the British North Borneo Company on the 7th day of February, 1883.

1. Applications for uncultivated lands of 100 acres and upwards in extent should be made to the Company, the Governor of British North Borneo, or to the Residents of Districts.

2. Should the application be accepted, the land must be selected within 12 months from the date of such application, but no selection shall be valid unless approved under the hand of the Governor, who shall have power to disallow any such selection either in whole or in part.

3. The Governor will grant an agreement for lease for the land so approved by him to the applicant, to be followed as soon as possible by the issue of a lease for 999 years.

4. Should the immediate survey of such land be impracticable from any cause, the Governor will issue a Permit to occupy such land, subject to the conditions on which a regular grant would have been issued; which Permit will specify the extent, and describe as nearly as may be the situation of the land to which it relates, and after the survey of the land so occupied, the Permit will be called in and cancelled, and a regular lease issued in lieu thereof.

*5. Upon the payment of $1 per acre a lease may be granted free of quit-rent.

* This clause does not apply to lands suitable for tobacco cultivation.

*6. A lease may be granted upon the payment of a premium of 50 cents per acre and an annual quit-rent of 10 cents, redeemable at any time before the expiration of the lease on payment of $1 per acre in addition to the premium.

7. One-third of the premium must be paid on the completion by the Governor of the agreement for the lease, and the remainder within 12 months from the date of the first application for the lease, or on the granting of the Permit, or of the Lease, whichever shall first take place.

8. A *bonâ fide* commencement to bring the land under cultivation must be made within 18 months from the date of the selection of the land, and the Lessee will be entitled to retain two acres of uncultivated land for every acre that shall have been brought under cultivation within a term of 12 years from the date of the agreement for a lease.

Should there still remain a balance of uncultivated land to make up the total acreage named in the original agreement, after the deduction of the cultivated and uncultivated land to which the Lessee is entitled at the end of the said 12 years, that balance of uncultivated land will revert and escheat to the Company.

9. All coal, minerals, precious stones, and mineral oils on, under, and within the said lands are absolutely reserved to the Company, or its Licensees, together with the right to enter upon the said lands, and to search for, get, and take away coal, minerals, precious stones, and mineral oils in, on, or under the same, and to reserve such portions of land as may be necessary for examining or working any mines, or conveying away the products thereof, upon payment of reasonable compensation to the Lessees for surface damage to such land.

10. Mining licenses will be granted on favourable terms to the Lessees of demised lands.

11. The Company reserves all navigable streams, rivers, and creeks, and a belt of land fifty yards wide along the banks of the same, and also a similar belt of land from high water mark along the sea-shore; ample provision, free of rent, being made for landing places and other purposes, for the convenience of the neighbouring estates.

* This clause does not apply to lands suitable for tobacco cultivation.

The Company will also reserve such portions as may seem advisable along the ridges of hills.

12. The Company reserves the right to resume possession of such portions of land as may be necessary for public purposes, such as police, revenue and telegraph stations, roads, railways, tramways, canals, &c., upon payment of compensation for damages actually sustained by the Lessee.

13. The Company reserves the right at all times to take, or to authorize others to take, timber, stone, clay, sand, and other road-making material for the construction and repair of neighbouring roads, bridges, &c., on payment of reasonable compensation for actual damage done to the crops or roads of the Lessee.

14. The Company reserves all edible birds' nests and guano, and also the right at all times to enter on the demised land, and to take, or authorize others to take, such edible birds' nests and guano on payment of reasonable compensation for actual damage done to crops or roads of the Lessee.

The Lessee will be entitled to collect all gums, gutta-percha, india-rubber, and other natural produce (save edible birds' nests and guano), on and of the demised land, paying any such Royalties in respect of the export of such produce as may for the time being be reserved to the Company, in pursuance of any regulations made or to be made by the Company. Provided that if the Lessee at any time, and from time to time, has not exercised his right in respect of any description of such produce, the Company may serve on him a notice of its intention to collect such description of produce, and if within a period of six months from the service of such notice the Lessee has not exercised his right, the Company or its Licensees, agents, or servants, may, at any time within three months from the expiration of such period of six months, enter on any forests or uncleared or uncultivated parts of the demised land, and collect therefrom the produce referred to in the notice for the use or benefit of the Company, on payment of reasonable compensation for actual damage done to the crops or roads of the Lessee, and so from time to time.

15. All expenses of survey, demarcation of boundaries, transfer or registration fees, or expenses of conveyance to be

borne by the Lessee. Landmarks will in the first instance be set up by the Company, but will be kept in repair at the expense of the Lessees.

16. Upon breach by the Lessee of the clauses marked respectively 7 and 8, or of either of them, the land shall revert or escheat to the Company.

17. All arrears of payment due by the Lessee under the provisions of this notification shall be recoverable by summary process in any court of law in the territory of The British North Borneo Company.

18. In the case of Companies or persons wishing to take large tracts of land modifications of clauses 5, 6, and 7 may be made.

19. The regulations respecting the registration of titles to land, and the fees chargeable for registration, shall be the same as those enforced by Ordinance No. 7 of 1849, enacted by the Legislative Council of the British Colony of Labuan, which ordinance has been adopted as the law in this matter throughout the territory.

20. The only fee chargeable under the provisions of this Notification upon the issue of a lease is the sum of two dollars, which includes the fee for the registration of the same.

Table of Fees.

	$ c.
On Issue of lease or grant, including fee for registration thereof	2.00
Registration of mutation of title to land	2.00
Registration of mortgage or other charge..	1.00
Inspection of Registers	0.25
For certified extract for same	1.00

Upset Prices and Premia.

	$ c.
Town building lots, upset price	16.00
Suburban lots	9.00
Country lands under 100 acres, per acre	1.00
Waste lands of 100 acres and upwards, free of quit-rent, premium per acre	1.00
Do., with quit-rent of 10 cents per acre, premium per acre	0.50

Quit-Rents.

	$ c.
Town building lots, per annum	6.00
Suburban lots, per annum	6.00
Country lots of less than 100 acres, not under special regulations, per acre	0.25
Waste lands purchased at $1.00 per acre	0.00
„ „ $0.50 „	0.10

NOTE.—Quit-Rents are redeemable by 10 years' purchase.

Dimensions.

Town building lots	33′ × 66 = 2,178 sq. feet
Suburban lots	132′ × 65 = 21,780 „

SCALE OF SURVEY CHARGES.

Acres in extent.	$ cts.	Acres in extent.	$ cts.	Acres in extent.	$ cts.
1	1 12	25	27 50	600	337 50
2	2 25	50	45 50	700	382 50
3	3 37	75	63 50	800	427 50
4	4 50	100	76 50	900	472 50
5	5 62	125	90 50	1,000	517 50
6	6 75	150	103 50	1,500	697 50
7	7 87	175	117 50	2,000	832 50
8	9 87	200	130 50	3,000	1,012 50
9	10 12	225	144 50	4,000	1,192 50
10	11 25	250	157 50	5,000	1,372 50
11	12 60	275	171 50	6,000	1,507 50
12	13 95	300	184 50	7,000	1,642 50
13	15 30	350	211 50	8,000	1,777 50
14	16 65	400	238 50	9,000	1,912 50
15	18 65	450	265 50	10,000	2,047 50
20	22 50	500	292 50		

All areas above 10,000 acres to be let at the rate of twenty cents per acre. Town and Suburban lots each $2.

NO. 2 OF 1885.

Proclamation by William Hood Treacher, Esquire, Governor and Commander-in-Chief of the Territory of British North Borneo.

(*Signed*) *W. H. TREACHER,*
Governor.

Approved by the Court of Directors of the British North Borneo Company on the 13th day of May, 1885.

WHEREAS it is expedient to repeal that portion of the Proclamation of the 23rd day of December, 1881, by which the provisions of the Labuan Land Ordinance, numbered 2 of 1863, were adopted as Law in the Territory of British North Borneo, and to make other provision in lieu thereof.

1. It is hereby enacted and proclaimed that the aforesaid portion of the Proclamation of the 23rd day of December, 1881, by which the provisions of the Labuan Land Ordinance, numbered 2 of 1863, were adopted as Law in the Territory of British North Borneo, shall be and is hereby repealed from the date of the coming into operation of this Proclamation, save and except as touching rights which shall have accrued, liabilities which shall have been incurred, acts which shall have been done, and all proceedings on matters which shall have taken place before this Proclamation shall come into force.

2. All Government Lands under 100 acres in extent within the said territory shall be distinguished into Town Lots, Suburban Lots, and Country Lots, and be disposed of in leases for the term of 999 years, unless at the time of sale of any Lot or Lots, any shorter term of lease shall have been notified in the advertisements or conditions of sale with the approval of the Governor, or if any Lot or Lots shall be disposed of under Section 5 hereof, for such term as the Commissioner of Lands, with the sanction of the Governor, shall think fit.

3. Applications for lands shall be made to the Commissioner of Lands, or to the duly appointed officer at out-stations, but no sale or transfer shall be valid unless approved under the hand of the Governor.

4. Before proceeding to the disposal of any Lots within the Town or Suburban boundaries, the limits of the said Lots shall be accurately defined and published.

5. The said lands shall from time to time be disposed of by the Commissioner of Lands, with the sanction of the Governor, by public auction, and it shall be lawful for the Commissioner of Lands to dispose of any land which shall have been once so exposed for sale without being sold, to applicants by private contract within four months from the date of such auction on terms sanctioned by the Governor.

6. The Town Lots shall be subject to an annual quit-rent at the rate of one hundred and twenty dollars per acre, such quit-rents being redeemable at 15 years' purchase.

7. Lands in the suburbs shall be disposed of in Lots of about one acre each, and in the country in Lots of less than 100 acres each. Such lands shall be subject to such annual quit-rent as shall be fixed by the Commissioner of Lands with the sanction of the Governor, from time to time, and publicly notified; the said quit-rents being redeemable at 15 years' purchase.

8. It shall be lawful for the Commissioner of Lands to determine at the time of the sale whether any or what credit shall be allowed to the Lessees of Lots, and to regulate the terms on which the whole or any portion of the purchase-money paid down shall be forfeited, but in no case shall less than one-tenth of the purchase-money be paid at the time of sale.

9. The payment of the quit-rent, reckoning from the date of sale, shall in every case be made in advance to the end of the current year upon the execution of the lease or of the permit to occupy, and the succeeding payments shall be made on the 1st day of January in advance for each succeeding year, and any lands for which the quit-rents may be more than one year in arrear and unpaid shall revert and escheat to the Government, and all premia or other monies paid on account of such lands shall be forfeited.

10. Country Lots which remain unoccupied and unimproved for three years from the date of the lease shall revert and

escheat to the Government, and all premia, quit-rents or other monies paid on account of all or any such Lots shall be forfeited.

11. In the case of Town Lots and Suburban Lots which shall remain unoccupied and unimproved for one year from the date of the lease, the Government shall have the option of re-entering upon and reselling the same at public auction, paying to the original Lessee the whole or such portion of the premium obtained on resale as the Commissioner of Lands, with the sanction of the Government, shall think fit, not exceeding the amount of the premium originally paid to the Government for such land, any excess being retained by the Government, but all premia, quit-rents, or other monies paid on account of all or any such Lots shall be forfeited. In the case of Town Lots, it is hereby enacted that any buildings erected thereon must be built in conformity with the Local Building Laws for the time being in force.

12. All Lots shall be surveyed and boundary stones or other landmarks be set up by the Government at the expense of the Lessees; and all boundary stones or landmarks shall be kept in repair by and at the expense of the Lessees, who, when called upon by the Commissioner of Lands, shall point out their boundaries. And no lease shall be executed or issued by the Commissioner of Lands until the whole of the premium, the quit-rent in advance for the year, and all expenses of survey, and the cost of such boundary stones or landmarks, and of setting up the same, and all fees for registration or transfer, and all expenses of conveyancing shall have been paid by the Lessees.

13. Should the Lessees, when duly called upon, fail at any time to point out or define their boundaries, or should their definition be incorrect, it shall be lawful for the Commissioner of Lands, after one month's notice of his intention so to do has been served upon the Lessees, their Agents or Managers, or has been published in the *Gazette*, to survey and define the said boundaries, and to charge the Lessees with the cost of so doing not exceeding one dollar per linear chain of boundary, and to recover the same in the manner provided in section 22 of this Proclamation.

14. Should it happen in case of Country Lots that immediate measurement of any land to be disposed of under the provisions of this Proclamation be found impracticable, it shall be lawful for the Governor to issue a Permit or a written authority to clear and occupy such land subject to the conditions on which a regular grant would have been issued; which Permit shall specify the extent and describe as nearly as may be the relative positions of the land to which it relates; and after the measurement of the land so occupied, the Permit shall be called in and cancelled, and a regular grant issued in lieu thereof.

15. It shall be lawful for the Commissioner of Lands, upon the application of the Lessee or other duly authorized person, to accept a surrender of any original grant of land and to grant new leases for sub-divisions of the same, provided that all arrears of rent due under the original grant have been previously paid, and provided that in no case shall the quit-rent for any portion of a Lot so sub-divided be less than one dollar per annum.

16. All coal, minerals, precious stones and mineral oil on, under and within the said lands are absolutely reserved to the Government or its Licensees, together with the right to enter upon the said lands and to search for, get and take away coal, minerals, precious stones and mineral oils in, on, or under the same, and to reserve such portions of land as may be necessary for examining or working any mines, or conveying away the products thereof, upon payment of reasonable compensation to the Lessees for surface damage to such land or any buildings thereon.

17. It shall be lawful for the Governor to grant mining licenses on favourable terms to the Lessees of demised lands.

18. The Government reserves the right to resume possession of such portions of land as may be necessary for public purposes, such as police, revenue and telegraph stations, roads, railways, tramways, canals, &c., upon payment of reasonable compensation for loss and damages actually sustained by the Lessee.

19. The Government reserves the right at all times to take, or to authorize others to take, timber, stone, clay, sand and other road-making material for the construction and repair of

neighbouring roads, bridges, &c., on payment of reasonable compensation for actual damage sustained by the Lessee.

20. The Government reserves all navigable streams, rivers and creeks, and a belt of land fifty yards wide along the banks of the same, and also a similar belt of land from high water mark along the sea-shore; ample provision, free of rent, being made for landing-places and other purposes for the convenience of the neighbouring Lessees.

21. The Government reserves all edible birds' nests and guano, and also the right at all times to enter on the demised land and to take, or authorize others to take such edible birds' nests and guano on payment of reasonable compensation for actual damage done to crops or road of the Lessee.

The Lessee of any demised land shall be entitled to collect thereon all gums, gutta-percha, India-rubber, and other natural produce (save edible birds' nests and guano) paying any such royalties in respect of the Export of such produce as may for the time being be reserved to the Government in pursuance of any regulations made or to be made by the Government. Provided that if at any time the Lessee shall not exercise his right of collecting any kind of such produce, the Government may from time to time serve on him a notice of its intention to collect such kind of produce, and if within a period of six months from the service of such notice the Lessee does not exercise his right, the Government or its Licensees, agents or servants may at any time within three months from the expiration of such period of six months, enter on any part or parts of the demised land, and collect therefrom the produce referred to in the notice, for the use or benefit of the Government, on payment of reasonable compensation for actual damage sustained by the Lessee.

22. All arrears of payment due by any Lessee under the provisions of this Proclamation shall be recoverable by summary process in any Court of Law in the Territory of British North Borneo.

23. The Regulations respecting the registration of Titles to Land shall be such as shall be provided by the Law or Proclamation in force for the time being, but every Lessee shall deliver to the Commissioner of Lands a copy of every assignment or

under-lease of his demised lands or any part thereof, and shall produce or cause to be produced to the Commissioner of Lands the original thereof, for the purpose of registration, and until such registration no such assignment or under-lease shall be valid.

24. The fee chargeable for registration under the provisions of this Proclamation upon the issue of a lease or a permit to occupy is the sum of two dollars, and such registration shall be compulsory.

The expenses of survey and the cost of boundary stones or other land marks, and the expenses of setting up such boundary stones or other landmarks shall be such as shall be notified from time to time by the Commissioner of Lands, with the sanction of the Governor, by public notification.

25. Nothing in this Proclamation provided shall be taken to affect the special conditions under which Lots of one hundred acres and upwards in extent are leased in accordance with the Special Regulations approved by the Court of Directors of the British North Borneo Company, on the 7th day of February, 1883, or such other Special Regulations as may hereafter be in the same manner approved by the said Court of Directors.

26. All dealings in land between European and Chinese and other foreigners on the one hand, and the natives of the country on the other hand are hereby expressly forbidden, and no such dealings shall be valid or shall be recognised in any Court of Law unless such dealings shall have been entered into and concluded before the 16th day of January, 1883.

27. A foreigner desirous of purchasing land from a native shall address his application to the Governor through the Commissioner of Lands, and the Governor, if he sees fit to sanction such purchase, shall, if the native owner consent, acquire the land on behalf of the Government, and shall fix the premium at which the same shall be leased by the Government to the applicant, and the land when so leased shall thenceforward be deemed to be alienated under the provisions of this Proclamation, and shall be subject to all the provisions thereof.

28. This Proclamation may be cited as "The Land Proclamation, 1885."

29 In the interpretation of this Proclamation the word "Governor" shall mean and include the Officer administering the Government of the Territory for the time being, and the words "Commissioner of Lands" shall mean and include the Officer in charge of the land office for the time being, or his duly appointed deputies, and in Section 10 the term "unoccupied and unimproved" shall, so far as regards Town Lots, mean Lots on which tenantable houses have not been erected and maintained.

APPENDIX.

METEOROLOGY.

In a paper read before the Meteorological Society on the 19th of June, 1889, on the Climate of British North Borneo, by Mr. Robert H. Scott (to whose courtesy we are indebted for these particulars), he says: For the arrangement of the material in the form of tables, I am indebted to Mr. J. A. Curtis, who has had considerable experience in work of that character.

For Sandakan we are able to submit fairly complete returns for the years 1887 and 1888, but for the other stations the records are so fragmentary that it seems best merely to give tables of mean monthly extremes of temperature and of rainfall.

As regards absolute extremes of temperature, Sandakan had a maximum of 95°·0 in April and May 1885, and a minimum of 67°·5 in January 1886. Kudat had a maximum of 98°·0 in January and December 1886, and Limbuak one of 99°·0 in January 1886. The last-named station had also the lowest minimum I can find, 66°·0 in February 1886.

As regards the rainfall, the returns are more complete than those of temperature. For Sandakan 10 years are available, with the single exception of the month of July 1879. For Silam there are 6 years with a few exceptions. The returns of "days of rain" are not always given.

The rainy season on the East coast is in the months from November to January, with a slight secondary maximum in June, as already mentioned in the remarks by Dr. Walker quoted at the commencement of the paper. The rainfall at Sandakan is much heavier than that at Silam.

The returns from the stations on the North and West coasts are very scanty, but I have fortunately been able to find, at the Colonial Office, returns of rainfall for Labuan for 11 years (irregular) and for Sarawak for 5 years.

Labuan is, as already stated, opposite Mempakol. Its rain returns show a totally different distribution to that at Sandakan, with a strongly

marked minimum in February, while there is no decided maximum, the falls in May, August, October, and November ranging between 15·18 ins. in August and 14·06 ins. in November.

The returns for Labuan are very irregular. We have the years 1855–1858, inclusive, complete, then there is a gap of 20 years, from which time the yearly totals are given, but not the monthly values for 1883 and 1884.

For Sarawak we have five years nearly complete. For several months no record of the days of rain is given, and for January 1885 there are no data. The means are for five years except in the case of January.

The station is much nearer the Equator than is Labuan, and the distribution of the fall is strongly contrasted with that prevailing at that station, and very closely resembles that at Sandakan.

I have appended to the paper the mean results for other stations in Borneo, taken from the latest volume (for 1887) of *Regenwarnemingen in Nederlands Indië*, by Dr. J. P. Van der Stok, director of the observatory at Batavia. The number of years is 9, except where otherwise stated.

For Banjermassing all that I can find, in addition, are tables of the mean temperature and of the number of rainy days, 1850–58, which appeared in the Netherlands Meteorological *Jaarboek* for 1859. The temperature tables have been quoted by Dove in his *Klimatologische Beiträge*, part II. p. 98. I have inquired at Utrecht, but cannot learn that in Borneo any other observations have been made subsequently except the rain returns which are printed by Dr. Van der Stok.

SANDAKAN.

APPROX. LONG. 118° 12′ E. APPROX. LAT. 5° 49′ N. HEIGHT ABOVE MEAN SEA LEVEL 10 FEET.

1887.	Air Temperature.									Tension of Vapour.			Relative Humidity.		
	Dry Bulb.			Wet Bulb.			Mean of Max. and Min.	Means of							
	9 a.m.	3 p.m.	9 p.m.	9 a.m.	3 p.m.	9 p.m.		Min.	Max.	9 a.m.	3 p.m.	9 p.m.	9 a.m.	3 p.m.	9 p.m.
	°	°	°	°	°	°	°	°	°	In.	In.	In.	%	%	%
January .	80·2	82·0	77·3	77·2	78·2	75·8	78·6	73·7	83·4	·873	·887	·861	85	81	91
February .	80·4	82·1	77·5	76·9	77·2	74·7	78·6	74·3	82·9	·855	·837	·806	83	77	85
March .	80·7	82·3	77·6	77·2	77·5	75·7	78·7	73·3	84·0	·864	·848	·852	82	77	90
April .	82·5	84·3	78·3	78·2	78·7	76·4	79·9	74·6	85·2	·876	·870	·872	79	74	90
May .	83·4	85·5	78·3	79·4	79·4	76·1	80·8	74·6	87·0	·918	·884	·857	80	72	89
June .	80·6	84·3	77·4	77·1	78·7	75·6	80·0	73·8	86·1	·861	·870	·850	83	74	90
July .	81·7	87·5	78·8	77·4	79·5	76·5	81·1	74·3	88·0	·855	·852	·869	79	65	89
August .	80·7	85·5	77·0	76·4	78·0	75·0	80·2	73·4	87·0	·826	·817	·829	79	66	89
September	81·4	87·1	77·6	76·9	79·4	75·3	80·6	73·5	87·7	·837	·854	·832	78	67	88
October .	82·1	84·8	77·8	77·5	78·1	75·1	80·6	73·9	87·2	·852	·834	·819	78	69	86
November.	81·3	84·4	77·7	77·2	78·4	75·5	80·4	74·4	86·3	·853	·853	·840	80	72	88
December .	79·6	81·3	77·2	76·8	77·1	75·5	78·8	73·7	83·8	·866	·848	·849	86	80	91
Year .	81·2	84·3	77·7	77·4	78·4	75·6	79·9	74·0	85·7	·861	·855	·845	81·0	72·8	88·8

1887.	Amount of Cloud.			Rainfall.			No. of Days of Rain.	Wind, No. of Observations of							
	9 a.m.	3 p.m.	9 p.m.	Total.	Max.	Day.		N.	NE.	E.	SE.	S.	SW.	W.	NW.
				Ins.	In.										
January .	..	..	..	29·350	14·47	9th	?	17	17	0	4	9	12	12	22
February .	..	..	..	18·305	..	..	?	7	3	0	2	5	19	26	22
March .	..	..	..	12·950	..	..	?	1	3	1	11	5	44	5	23
April .	..	..	..	5·265	..	..	19	1	3	3	18	6	33	7	19
May .	..	..	..	2·555	..	..	7	3	4	2	25	18	22	9	10
June .	..	..	..	5·560	..	..	14	0	3	0	36	1	33	2	15
July .	3·9	4·6	5·0	4·480	..	..	18	0	3	4	38	3	31	2	12
August .	5·6	6·3	5·5	6·330	1·07	14th	18	0	10	0	32	5	28	2	16
September	6·2	6·7	7·8	12·270	..	..	?	0	0	2	43	1	25	1	18
October .	3·9	5·2	4·9	9·180	..	..	15	0	6	0	36	2	33	1	15
November.	6·7	7·1	6·5	8·760	..	..	17	0	2	0	23	0	45	1	19
December .	6·5	7·1	5·6	32·470	7·60	26th	26	1	5	0	12	1	38	0	36
Year .	..	..	..	147·475	..	..	216	30	59	12	280	56	363	68	227

NOTE—The wind direction must be accepted with reserve, owing to the position of the station.

SANDAKAN.

APPROX. LONG. 118° 12′ E. APPROX. LAT. 5° 49′ N. HEIGHT ABOVE MEAN SEA LEVEL 10 FEET.

1888.	Air Temperature.									Tension of Vapour.			Relative Humidity.		
	Dry Bulb.			Wet Bulb.			Mean of Max. and Min.	Means of							
	9 a.m.	3 p.m.	9 p.m.	9 a.m.	3 p.m.	9 p.m.		Min.	Max.	9 a.m.	3 p.m.	9 p.m.	9 a.m.	3 p.m.	9 p.m.
	°	°	°	°	°	°	°	°	°	In.	In.	In.	%	%	%
January .	78·9	82·0	77·4	75·9	76·5	75·0	78·7	73·9	83·4	·837	·808	·821	85	74	87
February .	81·4	83·3	78·3	76·8	76·5	74·8	79·2	74·1	84·2	·833	·783	·796	77	69	82
March . .	83·3	85·4	79·3	78·2	78·0	75·8	80·7	74·8	86·6	·861	·819	·825	76	66	82
April . .	85·0	86·8	82·2	79·6	79·7	77·2	83·1	76·3	89·9	·902	·875	·835	74	69	76
May . .	84·8	87·5	80·7	79·2	79·0	77·5	84·0	76·5	91·4	·886	·828	·879	74	63	84
June . .	81·7	88·7	79·7	77·9	79·8	76·9	82·2	75·0	89·4	·879	·843	·899	82	62	86
July . .	82·1	88·9	80·4	77·1	79·4	76·3	82·6	75·7	89·4	·833	·821	·827	76	60	80
August .	83·0	88·6	79·7	77·8	79·0	76·3	82·6	74·9	90·3	·847	·808	·840	75	59	83
September	83·3	87·8	78·6	78·1	79·1	76·1	81·5	74·3	88·0	·856	·828	·851	75	68	88
October .	83·5	86·4	78·2	78·5	78·6	76·6	82·3	75·1	89·4	·873	·830	·882	76	65	91
November.	82·7	86·0	79·0	78·6	79·1	76·7	81·3	74·8	87·7	·891	·860	·873	80	68	89
December.	82·6	84·7	79·0	78·5	78·7	76·5	80·8	75·3	86·2	·889	·864	·863	81	72	88
Year .	82·7	86·3	79·4	78·0	78·6	76·3	81·6	75·1	88·0	·866	·831	·847	77·6	65·8	84·7

1888.	Amount of Cloud.			Rainfall.	No. of Days of Rain.	Prevailing Direction of Wind.
	9 a.m.	3 p.m.	9 p.m.	Total.		
				Ins.		
January	7·0	6·0	4·0	11·03	21	S.W.
February . . .	6·0	5·0	5·0	1·90	11	N.W.
March	5·0	3·0	2·0	3·99	11	N.W.
April	2·0	5·0	1·0	1·86	5	N.W.
May	2·0	3·0	1·0	2·82	10	N.W.
June	5·0	5·0	5·0	9·29	15	N.W.
July	5·0	5·0	5·0	3·18	9	S.E.
August	3·0	3·0	4·0	11·81	17	S.W.
September . . .	3·0	3·0	6·0	13·36	17	S.W. N.W.
October	2·0	3·0	5·0	9·40	13	S.W. N.W.
November . . .	3·0	3·0	3·0	13·50	9	N.W.
December . . .	5·0	5·0	4·0	19·52	19	N.W.
Year	4·0	4·1	3·8	101·66	157	..

MEANS OF MAXIMUM AND MINIMUM TEMPERATURES.

NORTH BORNEO.—SANDAKAN.

Date.	January.		Feb ruary.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Year		Date.
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max.	Min.	
1879	82·0	..	80·9	..	84·3	..	85·6	..	86·6	..	86·1	73·2	86·3	74·4	85·6	73·1	88·3	75·0	86·7	74·5	87·4	75·3	84·7	74·0	85·4	..	1879
1880	83·3	73·1	86·7	74·7	87·1	74·1	88·1	74·2	90·5	74·8	88·5	73·4	89·9	73·5	90·8	74·0	89·7	73·5	90·1	73·7	85·7	73·6	83·7	71·7	87·8	73·7	1880
1881	82·3	73·6	83·7	72·7	84·9	74·1	85·6	74·6	88·2	74·4	87·3	73·6	88·3	73·6	88·5	71·7	..	..	..	..	..	..	..	..	..	..	1881
1882	89·3	73·7	87·0	73·8	87·9	73·9	90·0	74·9	91·6	74·8	89·8	73·6	89·3	73·3	91·0	72·8	90·7	74·7	90·4	74·1	88·0	73·9	88·4	73·6	89·5	73·9	1882
1883	87·4	73·2	87·2	73·9	89·3	74·7	90·5	75·1	89·6	74·9	89·2	74·7	91·0	74·6	89·9	73·8	90·3	73·9	89·5	72·8	88·1	73·8	85·8	71·5	89·0	73·9	1883
1884	85·2	72·1	85·8	72·3	87·8	73·0	88·7	73·9	88·3	73·4	87·8	72·3	87·6	72·4	89·1	72·3	88·0	72·1	88·3	72·7	87·5	73·0	86·4	72·2	87·5	72·6	1884
1885	89·5	72 8	87·7	73·3	89·9	73·3	92·7	74·8	93·0	74·7	90·9	72·5	90·3	71·9	89·0	73·3	88·7	72·9	88·4	72·4	87·6	72·6	86·1	72·6	89·5	73·1	1885
1886	84·3	71·6	84·5	71·8	86·9	72·1	88·6	72·9	89·4	74·8	87·7	73·8	88·3	73·2	88·9	73·7	89·2	73·7	87·8	75·5	86·4	72·9	83·6	71·4	87·1	72·9	1886
1887	83·4	73·7	82·9	74·3	84·0	73·3	85·2	74·6	87·0	74·6	86·1	73·8	88·0	74·3	87·0	73·4	87·7	73·5	87·2	73·9	86·3	74·4	83·8	73·7	85·7	74·0	1887
1888	83·4	73·9	84·2	74·1	86·6	74·8	89·9	76·3	91·4	76·5	89·4	75·0	89·4	75·7	90·3	74·9	88·6	74·3	89·4	75·1	87·7	74 8	86·2	75·3	88·0	75·1	1888
Mean 9 years	85·3	73·1	85·5	73·4	87·2	73·7	88·8	74·6	89·9	74·8	88·5	73·6	89·1	73·6	89·4	73·3	89·0	73·7	88·6	73·9	87·2	73·8	85·4	72·9	87·8	73·7	Mean 9 years

SILAM.

1886	..	..	..	..	..	..	..	..	..	..	..	..	85·6	72·6	..	..	..	..	..	..	85·1	71·7	84·8	71·7	..	..	1886
1887	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1887
1888	85·4	73·8	86·9	73·0	87·7	71·8	85·6	72·0	85·9	72·4	85·7	71·4	85·2	71·4	85·5	70·0	85·3	70·0	85·9	70·4	87·0	70·4	86·3	71·1	85·0	71·5	1888

KUDAT.

1882	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	85·1	76·2	84·3	75·0	..	..	1882
1883	83·7	75·7	85·1	75·5	87·3	77·2	88·3	78·0	88·6	76·4	88·5	75·9	88·6	75·4	89·3	75·5	88·4	75·2	87·6	75·2	83·6	75·1	81·5	73·7	86·7	75·7	1883
1884	81·0	74·2	84·6	74·6	81·9	75·6	88·4	75·8	90·0	76·1	89·7	74·1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1884
1885	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1885
1886	81·9	71·0	82·4	72·8	84·7	74·1	88·1	75·6	89·8	73·4	90·1	75·2	92·3	76·3	91·5	74·2	89·6	76·7	87·8	77·4	85·6	72·9	81·4	72·3	87·1	74·3	1886

MEANS OF MAXIMUM AND MINIMUM TEMPERATURES.

North Borneo.—Limbuak-Banguey.

Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Year.		Date.
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
1886	86·6	73·2	85·9	70·7	87·1	71·5	88·2	74·5	88·4	75·8	87·5	74·4	87·0	75·8	88·0	75·0	87·3	72·9	..	..	..	..	..	..	..	..	1886

Papar.

1882	84·0	72·0	83·0	70·0	84·0	73·0	85·0	73·0	87·0	74·0	86·0	73·0	86·0	74·0	85·0	73·0	82·0	70·0	79·0	70·0	82·0	72·0	79·0	72·0	83·5	72·1	1882
1883	82·0	73·0	81·0	73·0	83·0	73·0	85·0	74·0	84·0	74·0	84·0	74·0	85·0	73·0	86·0	72·0	89·0	70·0	..	..	..	..	..	..	..	..	1883
1884	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1884
1885	81·9	71·0	81·3	70·6	81·7	71·8	85·1	74·8	85·6	74·7	85·6	74·5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1885
1886	..	..	..	..	..	..	85·3	74·5	..	75·3	83·9	74·3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1886
1887	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	86·6	75·2	85·7	74·8	84·7	74·7	..	..	..	..	1887
1888	..	..	..	..	85·2	73·7	..	..	..	..	87·9	75·6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1888

Gaya.

1887	..	..	..	..	..	..	..	..	..	..	..	..	87·7	74·9	..	..	86·9	75·7	85·2	75·2	83·5	73·9	..	..	..	..	1887
1888	82·8	73 3	..	..	84·7	75·6	86·9	77·4	..	..	86·8	76·4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1888

Mèmpakol.

1886	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	88·5	75·7	87·6	75·6	85·9	74·8	..	..	1886

RAINFALL.—Total for Month, with Number of Rainy Days.

North Borneo.—Sandakan.

Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Year.		Date.
	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
1879	14·92	..	21·95	..	21·35	..	7·74	..	4·36	..	2·65	..	2·67	..	4·92	..	2·08	..	10·88	..	8·18	..	12·29	..	113·99	..	1879
1880	22·73	..	5·07	..	10·57	..	8·71	..	6·72	..	5·73	..	6·37	..	17·88	..	11·60	..	8·77	..	26·40	..	26·59	..	157·14	..	1880
1881	14·21	..	9·09	..	1·54	..	4·47	..	10·09	..	11·23	..	6·66	..	4·91	..	19·18	..	3·78	..	24·05	..	10·00	..	119·21	..	1881
1882	31·28	..	7·50	..	8·89	..	9·31	..	2·82	..	15·50	..	7·05	..	4·90	..	5·20	..	8·40	..	19·30	..	13·80	..	133·95	..	1882
1883	18·70	..	16·70	..	9·06	..	3·82	..	9·36	..	4·65	..	10·03	..	3·80	..	8·49	..	12·76	..	13·76	..	23·57	..	134·70	..	1883
1884	16·68	..	5·06	..	3·60	..	0·77	..	9·08	..	7·87	..	7·68	..	6·60	..	6·92	..	9·83	..	16·58	..	15·52	..	106·19	..	1884
1885	5·72	11	1·99	11	0·84	6	0·51	10	3·13	8	17·11	20	5·29	10	8·84	18	8·43	16	16·73	16	12·28	20	20·37	22	101·24	168	1885
1886	30·72	22	4·96	16	3·60	7	0·64	8	5·50	12	7·28	20	3·49	19	4·18	16	14·26	20	6·50	23	14·12	22	28·07	25	123·32	211	1886
1887	29·35	?	18·31	..	12·95	..	5·27	19	2·56	7	5·56	14	4 48	18	6·33	18	12·27	?	9·18	15	8·76	17	32·47	26	147·49	..	1887
1888	11·03	21	1·90	11	3·99	11	1·86	5	2·82	10	9·29	15	3 18	9	11·81	17	13·36	17	9·40	13	13·50	9	19·52	19	101·66	..	1888
Total	195·34	..	92·53	..	76·39	..	43·10	..	56·44	..	86·87	..	56·90	..	74·17	..	101·79	..	96·23	..	156·03	..	202·20	..	128·89	..	Total
Mean	19·53	..	9·25	..	7·64	..	4·31	..	5·64	..	8·69	..	5·69	..	7·42	..	10·18	..	9·62	..	15·69	..	20·22	..	123·89	..	Mean

Silam.

	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
1883	9·85	..	7·89	..	5·19	..	3·18	..	16·56	..	7·45	..	4·91	..	4·30	..	10·32	..	5·05	..	8·79	..	10·04	..	93·53	..	1883
1884	6·45	..	7·05	..	2·03	..	3·85	..	4·95	..	..	..	3·86	..	3·13	..	11·14	..	9·06	..	13·70	..	26·48	..	..	..	1884
1885	2·61	4	0·00	0	0·40	1	1·04	2	7·70	5	18·80	11	7·81	4	2·40	2	5·80	3	6·41	6	10·39	6	11·01	7	74·37	51	1885
1886	19·56	11	1·93	2	4·66	4	2·05	9	7·31	12	7·65	13	5·25	17	5·43	14	..	..	..	..	7·46	22	4·16	15	..	..	1886
1887	4·74	..	4·06	..	4·29	..	6·28	..	8·74	..	6·25	..	7·58	17	10·43	..	10·02	..	3·36	..	13·25	..	11·31	..	90·31	186	1887
1888	3·48	..	2·96	..	5·16	..	4·38	..	1·84	..	6·70	..	3·30	..	12·63	..	10·38	..	4·18	..	7·36	..	6·35	..	68·72	..	1888
Total	46·69	..	23·89	..	21·73	..	20·78	..	47·10	..	46·85	..	32·71	..	38·32	..	47·66	..	28·06	..	60·95	..	69·35	..	..	..	Total
Mean	7·78	..	3·98	..	3·62	..	3·46	..	7·85	..	9·37	..	5·45	..	6·39	..	9·53	..	5·61	..	10·16	..	11·56	..	84·76	..	Mean
											5 years only.						5 years only.		5 years only.								

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RAINFALL.—Total for Month, with Number of Rainy Days.

North Borneo.—Kudat.

Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		Decen ber.		Year		Date.
	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In		
1882	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13·48	19	19·45	21	..	..	1882
1883	16·82	..	7·57	..	5·83	..	3·31	..	4·36	..	3·33	..	8·47	..	4·67	..	4·22	..	8·94	..	22·56	..	30·46	..	120·54	..	1883
1884	6·72	..	0·92	..	2·94	..	1·17	..	3·38	..	8·61	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1884
1885	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1885
1886	..	..	..	..	..	..	1·11	8	3·36	6	8·08	17	6·36	11	6·49	7	7·62	16	8·50	10	12·83	19	30·24	23	..	..	1886
1887	24·63	..	16·55	..	29·75	..	3·55	..	6·39	..	7·73	..	5·68	..	5·71	..	3·05	..	11·09	..	8·05	..	14·82	..	137·00	175	1887

Limbuak-Banguey.

	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
1886	2·29	4	5·10	6	7·20	2	2·88	11	6·00	17	13·17	12	4·71	11	12·30	15	8·68	12	..	..	..	..	..	..	..	..	1886
1887	11·21	..	3·11	..	24·01	..	7·39	..	8·57	..	5·44	..	7·20	..	22·12	..	4·62	..	18·04	..	14·23	..	17·71	..	143·65	224	1887

Papar.

	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
1882	6·02	11	1·98	12	4·70	11	6·25	12	6·88	9	9·13	14	6·45	15	20·48	19	10·65	16	18·40	26	20·41	23	17·71	22	129·06	190	1882
1883	20·79	20	1·85	8	4·94	17	3·37	11	10·37	18	12·02	17	5·60	10	15·26	17	12·40	12	..	..	..	..	..	—	..	..	1883
1884	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1884
1885	0·56	6	0·28	2	..	..	0·65	1	6·68	20	8·85	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1885
1886	..	..	..	..	..	..	6·16	11	13·29	19	21·07	13	12·42	20	16·38	15	18·95	17	..	..	..	..	..	..	..	..	1886
1887	3·56	..	4·51	..	9·35	..	12·35	..	17·13	..	15·39	..	4·68	..	13·97	..	8·12	..	10·06	..	30·49	..	16·48	..	146·09	199	1887
1888	..	..	..	..	2·67	..	..	..	..	..	11·66	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1888

Mempakol

	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
1886	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14·82	13	13·37	15	20·82	17	..	..	1886
1887	10·28	..	3·12	..	11·08	..	31·37	..	9·36	..	14·80	..	7·71	..	33·47	..	..	..	..	..	26·74	22	..	..	..	..	1887

Gaya.

	In.		In.		In.		In.		In.		In.		In.		In		In.		In.		In.		In.		In.		
1887	..	..	1·17	..	8·99	..	15·23	..	15·16	..	8·60	..	6·83	..	18·18	..	5·70	..	6·98	..	31·15	..	7·08	..	..	196	1887
1888	8·56	..	..	..	0·92	..	3·53	..	..	..	8·61	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1888

RAINFALL AT LABUAN AND SARAWAK.

Date.	January.		February.		March.		April.		May.		June		July.		August.		September.		October.		November.		December.		Year.		Date.
	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
1855	4·97	..	5·20	..	3·27	..	7·04	..	3·99	..	14·80	..	13·04	..	2·43	..	6·47	..	7·22	..	8·89	..	17·97	..	95·19	..	1855
1856	4·68	..	3·54	..	10·95	..	8·89	..	9·60	..	4·30	..	15·01	..	20·42	..	7·70	..	14·21	..	17·70	..	19·25	..	136·25	..	1856
1857	13·78	..	14·10	..	9·49	..	8·53	..	13·32	..	5·73	..	13·65	..	5·59	..	6·66	..	25·63	..	6·12	..	14·31	..	136·91	..	1857
1858	4·48	..	10·58	..	13·22	..	11·14	..	16·14	..	6·88	..	10·85	..	8·26	..	10·60	..	15·11	..	7·89	..	17·18	..	132·33	..	1858
1879	16·94	..	4·52	..	10·35	..	9·77	..	6·94	..	15·04	..	23·00	..	27·96	..	7·17	..	13·78	..	10·03	..	5·65	..	151·15	..	1879
1880	20·24	..	9·91	..	1·97	..	9·19	..	15·33	..	17·74	..	7·16	..	9·75	..	14·13	..	13·50	..	10·29	..	14·70	..	143·91	..	1880
1881	7·84	..	3·01	..	0·14	..	2·98	..	14·11	..	31·07	..	6·59	..	14·88	..	14·30	..	21·57	..	18·18	..	12·93	..	147·60	..	1881
1882	10·41	..	3·34	..	18·87	..	4·19	..	9·27	..	10·41	..	4·64	..	20·02	..	7·78	..	19·74	..	20·86	..	12·58	..	142·11	..	1882
1883	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	167·70	..	1883
1884	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	118·85	..	1884
1885	0·59	..	0·36	..	0·96	..	8·45	..	11·78	..	11·59	..	13·91	..	6·60	..	20·21	..	16·37	..	23·23	..	5·95	..	120·00	..	1885
1886	4·67	..	1·04	..	0·21	..	8·02	..	42·37	..	10·43	..	10·10	..	18·09	..	11·93	..	10·78	..	14·41	..	22·55	..	154·66	..	1886
1887	7·02	..	1·76	..	10·56	..	13·90	..	12·08	..	16·05	..	3·95	..	32·94	..	12·19	..	2·68	..	17·10	..	9·43	..	139·66	..	1887
11 years	95·62	..	57·36	..	79·89	..	92·10	..	154·93	..	144·04	..	121·96	..	166·94	..	119·14	..	160·59	..	154·70	..	152·50	..	1786·32	..	11 years
Mean ..	8·69	..	5·21	..	7·26	..	8·37	..	14·08	..	13·09	..	11·09	..	15·18	..	10·83	..	14·60	..	14·06	..	13·86	..	137·41	..	Mean

KUCHING, SARAWAK, 1° 28′ N. 110° 8′ E.

	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
1884	33·31	30	12·98	15	10·29	19	14·46	15	7·77	?	10·85	8	3·07	?	10·04	13	3·48	?	8·84	15	20·04	18	52·36	26	187·49	..	1884
1885	..	..	18·90	?	7·81	10	13·05	?	11·40	13	8·72	10	6·63	13	6·42	?	10·42	17	11·94	18	9·68	20	31·12	28	..	..	1885
1886	20·60	?	43·83	27	16·93	21	8·45	18	12·38	20	5·34	15	7·84	17	11·08	21	9·81	?	11·50	19	13·38	?	11·93	20	173·07	..	1886
1887	26·91	23	29·59	21	11·06	24	9·68	17	9·86	20	14·47	18	4·96	8	9·35	20	8·41	13	9·83	16	14·26	22	18·07	23	166·45	..	1887
1888	27·90	16	12·95	17	4·48	17	4·62	11	4·16	17	4·43	13	1·35	5	7·46	7	6·90	10	7·58	19	10·54	23	15·04	21	107·41	..	1888
5 years	108·72	..	118·25	..	50·57	..	50·26	..	45·57	..	43·81	..	23·85	..	44·35	..	39·02	..	49·69	..	67·90	..	128·52	..	..	..	5 years
Mean ..	27·18	..	23·65	..	10·11	..	10·05	..	9·11	..	8·76	..	4·77	..	8·87	..	7·80	..	9·94	..	13·58	..	25·70	..	..	..	Mean

TRUSAN, SARAWAK.

	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
1888	15·72	13	16·97	19	15·56	18	13·57	18	15·41	23	6·21	10	4·74	11	9·78	16	12·13	20	17·31	21	16·76	25	15·18	23	153·34	217	1888

DUTCH BORNEO.—RAINFALL.

BANJERMASSING, 1850–1858. Lat. 114° 35′ E. 3° 19′ S.

Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Year.	
	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.	Total.	Days.
	In.		In.		In.		In.		In		In.		In.		In.		In.		In.		In.		In.		In.	
1850–58..	..	23	..	20	..	17	..	14	..	14	..	12	..	16	..	11	..	9	..	13	..	17	..	24	..	190

BANJERMASSING, 1879–1887. Lat. 114° 35′ E. 3° 19′ S.

1879–87..	12·20	22	10·98	21	11·77	20	7·96	14	6·18	14	6·18	13	3·74	9	4·37	11	2·36	6	4·88	12	8·07	17	13·35	21	92·04	180

PENGARON, 1879–1887. Lat. 115° 15′ E. 3° 15′ S.

1879–87..	13·74	21	9·57	19	14·49	24	8·78	17	9·18	18	7·25	16	3·66	9	4·41	9	2·44	7	5·79	11	10·40	19	14·57	22	104·28	192

BARABEI, 1879–1887. Lat. 115° 16′ E. 2° 17′ S.

1879–87..	8·47	15	11·42	17	12·56	20	7·99	16	8·47	13	8·35	13	4·65	8	4·80	11	2·99	7	6·06	12	10·99	17	12·64	20	99·39	169

AMOENTHAI, 1879–1887. Lat. 115° 10′ E. 2° 15′ S.

1879–87..	12·60	18	12·09	19	15·48	20	7·36	15	8·99	13	7·05	12	3·39	7	2·99	10	2·88	7	4·49	11	10·95	16	13·82	20	102·09	168

BOENTOK, 1881–1887. Lat. 114° 30′ E. 1° 15′ S.

1881–87..	11·14	18	10·99	18	13·35	19	10·87	19	10·87	16	5·63	12	4·02	8	5·12	11	4·49	8	7·05	11	14·06	18	14·14	19	111·73	177

PONTIANAK, 1879–1887. Lat. 109° 20′ E. 0° 1′ N.

1879–87..	12·17	18	7·44	11	9·49	14	8·74	14	9·21	14	9·80	13	4·73	8	9·06	14	8·66	11	17·44	19	16·38	20	15·95	19	129·05	175

SINTANG, 1879–1887. Lat. 111° 32′ E. 0° 7′ N.

1879–87..	13·55	18	12·44	17	13·31	19	12·17	18	11·97	16	11·26	15	7·99	11	12·13	15	9·41	13	14·69	19	14·37	21	15·00	22	148 29	204

SING KAWANG, 1879–1887. Lat. 108° 59′ E. 0° 55′ N.

1879–87..	14·77	21	8·43	12	6·38	14	7·72	15	7·05	14	6·81	12	4·41	8	11·07	14	5·59	11	13·07	19	15·75	23	18·63	23	119·68	186

DUTCH BORNEO.—TEMPERATURE.

BANJERMASSING.

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1850–58 ..	80°·2	80°·4	80°·8	81°·3	81°·5	80°·8	79°·5	79°·9	80°·8	81° 4	80°·9	79°·9	80°·6

REPORT ON BRITISH NORTH BORNEO.*

By WILLIAM M. CROCKER, *Acting Governor.*

GOVERNMENT HOUSE, SANDAKAN,
1st November, 1887.

SIR,

In the correspondence which I have had the honour to transmit to you, I have essayed to supply a faithful record of my endeavours to carry out the mission with which I was entrusted by the Court, and as this correspondence has necessarily called forth an expression of views on so many matters connected with the administrative development of the Colony, it would seem to be a work of supererogation to supplement it with a report. But, after having observed for some time from the remarks made by Shareholders at the half-yearly Meetings in London that there are many who have but a vague idea of the aims and objects of the Company, and of the nature of the country we are engaged in developing, I feel persuaded that, with the opportunities I have had of forming an opinion, any attempt, however imperfect, to throw some light on the subject may prove useful.

2. The granting of a Royal Charter to the British North Borneo Company—six years ago—called forth a number of articles in the public press which were responsible for spreading false impressions in the minds of the public, by comparing it to that granted by QUEEN ELIZABETH to the "Governor and Company of Merchants of London trading to the East Indies," thereby raising visions of similar possibilities. Quite ignoring the fact that in place of an enormous territory thickly peopled and well cultivated and where civilisation had existed and wealth accumulated for thousands of years, the British North Borneo Company had taken possession of a land covered with virgin forest, which had never been occupied by civilised man, where the inhabitants were a

* This Report and its Supplement are inserted as giving much interesting information, but it must be borne in mind that it was more than two years ago, and many changes have taken place, more especially with regard to the development of tobacco cultivation, as the annexed memorandum will show.

barbarous few scattered about in independent tribes, and where it was necessary to inspire confidence and attract capital before any good results could possibly be achieved.

3. Although it is not presumed to draw any comparison with the East India Company—which terminated in such a magnificent Empire—still there is a similarity in the Charters, and in the fact that the British North Borneo Company has come into a valuable possession with great future possibilities, as I hope to be able to demonstrate by this Report.

4. Upon the formation of the Company the Directors took over a country containing some 25,000 square miles, since increased to 30,000, containing an estimated population of 150,000 people, some living absolutely in a state of nature, others cultivating the ground in a fugitive manner, whilst amongst the inhabitants of the East Coast were the pirates of whom Sir Spencer St. John wrote in 1863, in his 'Life in the Forests of the Far East':—

"The Lanuns still issue in force from the great island of Magindanau, which nominally belongs to Spain, but they have also settlements on the north-western and eastern shores of Borneo. Those on the north-west, as Tampasuk, Pandasan, Layer Layer, Kinio Kinio, do not actively pirate near their own abodes since the chastisement inflicted on them by Sir Thomas Cochrane in 1846, but they fit out boats to cruise with their relations of Tungku, and other places lying to the south of Cape Unsang on the eastern coast of Borneo. Our information of the pirate haunts is at present scanty, as no one during the last ten years has visited the north-eastern coast of Borneo, but there would be no difficulty in obtaining an accurate account of the pursuits of every district there.

"I do not think it is generally remembered in England that the whole of the north of Borneo was formally ceded to us by the Sultan of Sulu during the last century, and that we distinctly admitted the validity of the cession by twice occupying Balambangan. When we were last in Sulu the people, who perfectly well remembered and still acknowledged the cession, were eager to know when it was our intention to take possession, and appeared rather disappointed on finding we had no orders to do so. It is a noble country, and possesses two of the finest harbours in the world, Gaya Bay on the north-western coast, and Sandakan Bay on the north-eastern. The former is at present claimed by the Sultan of Brunei, and apparently with some right, but the latter is undoubtedly ours if we should think fit to take possession. It is the duty of a great country to advance, but never to recede.

* * * * * *

"It would be a glorious task for England to undertake, but profitable as well as glorious, as there can be no doubt of the destruction of trade

by these buccaneers, and the fear of capture keeps the principal portion of the population at home, and renders them careless to collect the produce with which their countries teem."

5. This then was the task described by Sir Spencer St. John as a glorious one for England to undertake, which the Company found themselves pledged to accomplish. It is true that, owing to the vigorous action of H.M.'s gunboats, assisted by the Dutch and Spanish Governments, a considerable improvement had taken place on the East Coast of Borneo when the Company took possession of the country; but pirate raids were not unknown, and even last year the Governor of British North Borneo had to call in the assistance of H.M.S. *Zephyr* to assist in punishing the pirates of Darvel Bay in consequence of their kidnapping propensities.

6. In order that shareholders may appreciate the difficulties of the position they must recognise the fact that the Court had committed to its charge the grave responsibility of protecting the interest of one hundred and fifty thousand people of mixed races, whose welfare and advancement had to be considered, as well as the profitable employment of the capital of the Company.

7. The first step was the establishment of a firm and equitable government to endeavour to change a savage community into one subject to rules and order, and by removing the oppression from which the people had suffered at the hands of their petty chiefs, to gain at once their submission and their confidence.

8. How this has been accomplished I leave to the testimony of such men as Lord Brassey and Sir Frederick Weld, who have both visited the country during my residence.

The former, in a paper published in the *Nineteenth Century* in August last, says:—"A full examination on the spot of the progress already made, justifies sanguine hopes for the future of North Borneo. The difficulty in the Company's way has been the absence of the power and prestige of a great nation, while it has acted on behalf of England as a buffer against national susceptibilities. Gradually, and by the most peaceful means, it is establishing order in a savage country. It is opening to the teeming multitudes of China a new field of labour. It is giving to the congested capital of Europe, without distinction of nationality, another outlet. Every flag is welcomed in its ports on equal terms. The prosperity of a country thus administered is a benefit to mankind."

In addition to this Lord Brassey shewed his confidence in the Company by investing in its shares, and in the country by taking an interest in a mercantile firm in Sandakan, which is engaged in the timber trade with China.

Sir Frederick Weld, G.C.M.G., who has recently visited Borneo in his capacity as Governor of the Straits Settlements to enquire into certain matters connected with Brunei, met the writer at Labuan, who accompanied him in the *Sea Belle* to Sandakan, Kudat, Gaya, and Mempakol. At the latter place he addressed the assembled chiefs, telling them that he had visited the various stations under the Company's jurisdiction, and had noticed that the people were evidently contented and happy and showed a confidence in the rulers, which spoke well for the Government of the country; that the station showed signs of prosperity; and that he had been very pleased with everything he had seen.

9. Having thus tried to make the political position plain, let us turn to the commercial aspect as it presented itself at the beginning. The trade of the country was found to be insignificant, consisting chiefly of the exportation of a few rattans and a little gutta-percha. The Company had not sufficient capital to undertake planting operations on a large scale, and it was finally decided not to become competitors for the trade, but to throw open the country to private enterprise, and by setting up a liberal government endeavour to attract capital and labour from without. In short, the Company became a purely administrative body for the purpose of founding a Colony.

10. That there was a fair prospect of such an undertaking becoming a financial success without sacrificing the interests of the Colony to those of the shareholders, had already been abundantly shown by the rapid progress which immediately followed the introduction of a settled government, under the Residential system, in the Native States of the Malay Peninsula.

11. The State of Perak, which contains an area of 7949 square miles and a population of about 118,000 (55,000 of whom are Chinese), has shown remarkable advancement during the last eight years, the revenue having increased from $388,000, or £65,000, to $1,688,000, or £280,000, a year, during which time the debts of the State amounting to $750,000 have been paid, and at the present time the assets exceed the liabilities by $731,000. I see in Sir Hugh Low's Report for 1886, that it is now contemplated to invest the sum of $250,000 from the cash balances in securities of the Government of India. In addition to paying a yearly sum of $100,000 for pensions and allowances to chiefs out of the revenue, excellent metalled roads have been made, a short line of railway has been built, a hundred miles of telegraph poles have been laid, and a large number of important public buildings have been constructed. The secret of this success is the presence of tin, which has attracted the Chinese, who now number some 55,000, and by their exertions 38,000 tons of tin have been exported during the last five

years. Out of a revenue of $1,688,000 no less than $1,397,000 is contributed by the export on tin, and the licences for the sale of opium, spirits, and tobacco consumed by the Chinese. The licence alone amounts to $750,000 a year, or $13 per head of the Chinese population; and including the export duty on tin, a population of 55,000 Chinese pay the State directly and indirectly no less than $25 per head per annum.

12. The protected State of Selangore, containing an area of 3000 square miles and a population of 60,000 persons (of whom 40,000 are Chinese), has also made rapid progress during the last eight years, the revenues rising from $184,387 (£30,000) in 1879 to $689,401 (£115,000) in 1886. Here again tin is the main factor; 9900 piculs or 5800 tons being exported during the year 1886, on which a duty of $3 per picul is charged. Like Perak the bulk of the revenue is derived from customs and licences, which contribute no less than $614,000 out of a total of $689,401, or over $15 per head per annum on the total Chinese population.

13. The Malay State of Johore, although it has no tin and is not under British surveillance, has made rapid strides under its enlightened ruler. The area of the country is about 9000 square miles, and the population is estimated at 100,000 persons, more than one-half of whom are Chinese, engaged principally in growing gambier and pepper. No accounts are published, but the revenue may be taken at from six to eight hundred thousand dollars a year, and its prosperity is mainly owing to the presence of Chinese.

14. The Settlement of Deli, in the Island of Sumatra, is one of the most advanced of the Colonies under Dutch rule, and its prosperity is also owing to such a large number of Chinese being employed in the Tobacco Estates. The tobacco grown in Deli is highly esteemed by cigar manufacturers for covers, it being remarkable for its pureness of leaf. The production of this tobacco has been steadily increasing, the exports being in 1883, 93,000 bales (of 80 kilos. or 177 lbs. each); in 1884, 128,000; in 1885, 125,300; and in 1886, 140,000 bales. Land in Deli and Langkat suitable for tobacco growing is now running short. I have found it impossible to obtain the actual figures of the revenue derived from Deli by the Dutch Government, but a resident of the country gave me as a safe estimate $800,000 a year, whilst the expenditure does not amount to one-half that sum.

15. The territory of Sarawak, on the north-west coast of Borneo, comprises an area of 41,000 square miles with a population of about 300,000 souls composed of various races, out of which it is estimated there are 20,000 Chinese. Although the revenues of this State have not advanced by leaps and bounds the progress has been steady and satisfactory

(especially since the introduction of Chinese gambier and pepper planters in 1875), as the following figures will show:—

Revenue	1875	$158,435
„	1880	229,718
„	1885	315,264
„	1886	346,661
„	1887	350,813

Here also the bulk of the revenue is derived from licences, the Chinese contributing directly and indirectly about $200,000 a year, or $10 per head in the population; and their introduction into Sarawak resulted in doubling the revenue in ten years.

16. I have collected the foregoing facts as they prove beyond a doubt that by encouraging the immigration of the industrious Chinaman into a sparsely inhabited territory like British North Borneo, you may not only secure the development of the country, but a paying population who will in time provide a revenue so much in excess of the cost of government that the venture has every promise of becoming a profitable investment.

17. The Court of Directors and Governor Treacher being quite alive to the importance of attracting Chinese took immediate steps to secure this end, and Sir W. Medhurst was appointed a Special Commissioner for the purpose. In the absence of any discovery of a paying mineral, or of the influx of sufficient employers of labour, it was soon found that the supply of Chinese exceeded the demand, and the Chairman has fully explained at the half-yearly meetings the depression of trade which followed from French war operations and other disturbing causes, and the consequent up-hill battle which the country has had to fight. Bearing these circumstances in mind, I am convinced that if any shareholder visited this country he would endorse Lord Brassey's opinion that the progress made during the past five years reflects great credit on the administration.

18. The revenue of the country is steadily increasing, as the following figures will show:—

	From Revenue Proper.		Land Sales.
1883.	Revenue	$ 51,654	$25,449
1884.	„	82,448	15,458
1885.	„	110,452	2,863
1886.	„	127,731	12,034
1887.	„	140,000	10,000
1888.	Estimated	158,000	86,000

When reviewing the growth of the revenue it must be borne in mind that the Company in trying to attract population and capital had to

compete with adjacent countries where free trade prevailed, and therefore they had to set up a most liberal form of Government. All import duties were abolished; land had to be almost given away; and no direct taxation was imposed, as it was necessary at first to gain the confidence and goodwill of the native races. Tobacco planters were given land without a quit-rent, the only condition being that after five years the tobacco exported will pay an export duty which shall not not exceed one per cent. per pound avoirdupois. Under these conditions three Tobacco Estates have been commenced and two more are about to be opened, and it is only this year that the Court could declare that no more tobacco land will be sold under the price specified in the Land Regulations. The same remark applies to native taxation, and a scheme for increasing this in 1888 is also under consideration.

19. The subject of Taxes on the people requires very careful handling. The Company has already been accused of sucking the life-blood of the people in order that they might pay dividends to shareholders. In answer to such charges and to show the liberal form of Government which has been set up in British North Borneo I may quote the following examples:—

A. The natives of Java pay one-fifth of the produce from the land, and one day's gratuitous labour in the European week of seven days, or from 6*s.* to 16*s.* per head of population.

B. The natives of India pay a heavy land tax, and in the gross revenue from 5*s.* to 12*s.* per head per annum.

C. The natives of Fiji are assessed 4*s.* per head in direct taxation in produce; and, including heavy import duties on all goods, pay over 6*s.* per head.

D. The natives of Ceylon pay 8*s.* per head, and in addition six days' gratuitous labour towards the up-keep of the roads. The latter is now commuted by a money payment and yields a revenue of £83,000 a year to the Colony.

The natives of all British Colonies might be cited, but it is unnecessary, as I believe there is no country in the world possessing any semblance of a Government where the inhabitants are so lightly taxed as the people under the Company's rule; as, should the measures now contemplated become law, the gross native taxation will not amount to 1*s.* 3*d.* per head on the total population.

20. The last balance sheet will show that out of a total revenue of $139,765, the native population, numbering some 150,000 souls, paid only in poll-tax and inland passes $8037, all of which was paid away

in salaries and allowances to native chiefs and collectors. As they do not consume excisable goods this is their only contribution towards the up-keep of a large police force and expensive administration, so that it is evident Chinese must be attracted to the country before the revenue will show any material increase.

21. The expenditure of the Colony has been reduced from $391,547 in 1883 to $189,154 in 1887.

In connection with this I may cite the following remarks by Sir Arthur Gordon—who was Governor of Fiji in 1876—from a despatch to the Earl of Carnarvon:—

"That the establishments are still large compared with the present resources of the Colony cannot be denied; but your Lordship does not require to be told that a population more numerous than Trinidad, composed of discordant races, cannot be governed without considerable expenditure or by a very small establishment. Nor need I remind your Lordship that in the early stages of the existence of a Colony its establishments are always disproportionate to the revenue. Twenty years ago, when the revenue of Trinidad was £76,900, its establishments cost £48,000. Very nearly the same establishments still suffice, but the revenue has risen to £300,000."

These remarks might have been written about British North Borneo to-day, and I would point out that in 1876, after rigid economy, Sir Arthur Gordon expended in the Colony of Fiji, which contains an area of 7400 square miles and a population of 128,000 people, £71,000 or $420,000, whilst to manage British North Borneo, which contains an area of 31,000 square miles and a population of about 150,000 people, more scattered and discordant than the inhabitants of Fiji, the Company will expend in 1887 £29,000, or a total of $176,000, which is about one-half of that required to conduct the affairs of the Colony of Fiji under Her Majesty's Government.

22. Any one interested in Colonial matters will find how economically British North Borneo is worked, when the area and population are taken into consideration, by comparing the expenditure with that of British Guinea, British Honduras, the Gold Coast Colony, the Bahamas, the Windward Islands, and many others; and if at all dissatisfied at the progress made he should read the Report which has just been sent to the Queensland Government by the Honourable John Douglas, Her Majesty's Special Commissioner for New Guinea, when he will find that although a British Protectorate was declared over the south-eastern part of New Guinea on the 26th of November, 1884, and although the Australian Colonies guaranteed an expenditure at the rate of £15,000 a year from June, 1884, for the establishment of the Commissioner's

jurisdiction, nothing had been done up to the end of 1886. The High Commissioner seems to be powerless to protect traders, unable to pass regulations or levy duties of any kind, and he can give no encouragement to enterprise in seeking out and developing the resources of the country—so that it cannot be expected that New Guinea will make any substantial advance in the direction of civilization or revenue for some time to come.

23. Having endeavoured to show the difficulties which have had to be contended with in the past, I will now speak of the present and future prospects of the country. It is estimated that the revenue for 1888 will more than cover the expenditure. The road to advancement has only been traced, and has yet to be made. The country must be developed in a legitimate manner, when I am convinced that the ultimate results will justify the expenditure, and shareholders will reap the reward of their patience, but they must be prepared to forego immediate benefits for prospective advantages.

24. The Chinese are finding their way into the country slowly, it is true, but steadily; and, should tobacco planting progress as it promises, it will be followed by a more rapid immigration of this hard-working and revenue-paying people. Since it has been made known that the tobacco grown on the Ranow Estate in Murudu Bay has been pronounced by experts to be equal in every way to the best Sumatra, and that it realized an average price of 3*s.* per pound avoirdupois in Amsterdam, a considerable impetus has been given to the enterprise, and applications for land continue to come in, chiefly from Holland. Should this year's yield of tobacco per acre be satisfactory on the two estates now cutting, viz., Banguey and Ranow, there is every reason to expect that planting on a large scale will immediately follow, and next year will doubtless be the most important one in the history of the Company.

25. The gold fields of the Segama River promised last year to give paying occupation to a large number of Chinese. These anticipations have not yet been realized, but the prospectors are still hopeful of discovering a valuable field.

26. In Sandakan Bay a large number of sawyers now find profitable employment. One European Timber Company is paying good dividends by shipping to China, and coolies are finding their way down in their vessels. Another Company has been formed in Europe, and will, I hear, erect powerful machinery immediately. The timber resources of Sandakan Bay are almost inexhaustible, and from its advantageous position the trade must continue to develop.

27. If a pessimist view of the future be taken, and the failure of tobacco and gold is assumed, it must still be remembered that the share-

holders possess a country larger than Ceylon, with all its land, timber and minerals. A country which there will be no difficulty in holding and governing; as combined opposition from the natives is impossible. A country which cannot retrograde but must advance, so that it would seem that the worst that could possibly happen would be a retarded development and capital locked up for a longer period without yielding any return.

28. An optimist, however, will see tobacco doing for Borneo what it has done for Deli, and point out that when the export reaches that of Deli in 1886, viz., 140,000 bales at 177 lbs. each, the duty of one cent. per pound which the Company can impose in 1892 will bring in a revenue of $240,000 alone, to say nothing of the increased revenue from a large Chinese population. He will see gold doing for Borneo what tin has done for Perak. He would point out that British North Borneo is larger than Ceylon, where the land sales between the years 1833 and 1884 realized over two millions sterling, and ask why Borneo should not do likewise. In fact I would defy the most confirmed pessimist to write anything but a hopeful report after visiting this country. It would be impossible for him to avoid writing about the magnificent harbour of Sandakan, the beautiful bay of Silam, and the glorious tropical climate; and even the most prosaic shareholder, after steaming for three days from one boundary of the country in Brunei Bay to the other in Sibucco Bay, passing the most lovely scenery all the way, could not help feeling proud of his proprietary rights over such a fine territory; but I have tried to take a dispassionate view and to place the actual position of the Company before the Court and the shareholders, at all events as it appears to me, so that they may form a correct idea as to the value of their property.

I have the honour to be,

Sir,

Your most obedient Servant,

WILLIAM M. CROCKER,

Manager.

To SIR RUTHERFORD ALCOCK, K.C.B.,
Chairman of the Court of Directors of the
British North Borneo Company.

SUPPLEMENT.

GOVERNMENT HOUSE, SANDAKAN,
15th March, 1888.

SIR,

In forwarding my Report I am happy to inform you that tobacco planting, which I foreshadowed in paragraph 25 as being likely to progress during 1888, has made such strides during the last four months that I am constrained to add a supplement showing what an important bearing this may have upon the future of the country, and at the same time to express the opinion that the surplus anticipated at the end of this year is likely to be considerably increased by the excess of receipts over expenditure should the rapid development of this enterprise, which has apparently set in, continue without interruption.

2. I have annexed a map dividing the comparatively thickly populated portion of the country from that sparsely inhabited: showing also the lands already alienated for tobacco planting and the estimated quantity still available in the neighbourhood of harbours and navigable rivers which may be opened up without any large outlay on the part of the Government or investors in the construction and up-keep of the roads.

3. With the exception of the land at the base of the mountains around Murudu Bay, amounting to 60,000 acres, all of which has been taken up, there are no large tracts of flat land on the west or thickly populated coasts. Ranges of mountains stretch from the foot of Murudu Bay to Brunie Bay, connected by cross ridges, which in some cases run down to the sea, consequently the rivers are not navigable nor do they as a rule run through any large alluvial plains. Although a great deal of this part of the country has been denuded of jungle, there are still thousands of acres admirably adapted for the growth of tea, coffee, gambier and pepper, but, with the exception of some few thousands of acres at Padas, Kimanis, and perhaps Abai, there is not much land in this direction to be found suitable for tobacco planting.

4. On the East Coast, however, there are enormous tracts of primeval jungle awaiting the arrival of capital and labour for their development, the greater part of which is practicably uninhabited. The navigable rivers Paitan, Sugut, Labuk, Segaliud, Blacking, Kinabatangan, Segama, and numerous other smaller rivers in Darvel Bay flow through tens of

housands of acres of alluvial land admirably adapted for tobacco growing, and it is in this direction that we may look for a large levelopment in the future.

5. I shall endeavour to show that this particular configuration of country is a matter for congratulation, inasmuch as it will considerably facilitate the work of the Government, whilst it opens a double field for the interesting experiment of colonization.

6. Many of the people on the West Coast, from their contact with the Chinese some hundred years ago, already possess a more advanced system of agriculture than most of the inhabitants of Borneo. They use the pony, buffalo, plough and harrow, and are quite expert in the practice of irrigation. Pepper, sago, and rice are already produced by them. They grow their own cotton and tobacco, and they manufacture an excellent cloth from a fibre resembling rhea. Here then is a hopeful field for raising a semi-civilized people to a more advanced state of civilization and happiness by the establishment of a good Government and the introduction of habits of thrift and industry amongst them.

7. Whilst this interesting work is being carried out on the West Coast, the not less interesting experiment of developing a larger portion of the territory by the introduction of Chinese and Javanese can be undertaken simultaneously on the East Coast.

8. As stated in paragraph 15 of my first Report, Deli exports about 140,000 bales, or 24,780,000 lbs. of tobacco a year. Should our output reach that amount an export duty of one per cent. per pound avoirdupois would, without any indirect taxation, yield an annual revenue of $247,800. Up to the end of 1886 I find the land taken up in Deli and adjacent states for tobacco growing amounted to 255,000 acres. We have already sold 112,000 acres, and have received and accepted during the last four months applications for 200,000 acres more. We have still, according to estimates, 600,000 acres in accessible places suitable for raising tobacco, and over a million acres if the heads of our rivers and plains in the interior be taken into consideration. As no other country has as yet been found to produce the same class of tobacco as that grown in Deli and British North Borneo, and as no more eligible land seems to be available in the former country, the possibilities of advancement in British North Borneo are so illimitable that it is difficult not to take a sanguine view of the future.

9. A glance at the map* will show that lands already taken up and applied for extend from Darvel Bay to Murudu, or over two degrees of latitude, and as the quality of the tobacco has already been satisfactorily

* To be seen at the Office of the Company, 4, Throgmorton Avenue, E.C.

proved in Murudu and Sandakan Bays, there is little doubt that the whole district selected will be equally favourable to its growth.

10. Given all the conditions favourable, a tobacco plantation is a veritable gold mine, and some of the large Companies in Deli pay over one hundred per cent. per annum. Everything depends upon good management; and, as planting takes place upon rich alluvial flats, the opening of an estate is generally attended with the risk of sickness amongst the coolies.

The Ranow Estate in Murudu Bay will pay a dividend the first year, and next year they hope to pay the greater part of the subscribed capital. Here the manager is thoroughly experienced both in the management of coolies and the manipulation of the crop.

I have the honour to be,

Sir,

Your most obedient Servant,

WILLIAM M. CROCKER,

Manager.

SIR RUTHERFORD ALCOCK, K.C.B.,
Chairman,
British North Borneo.

MEMORANDUM ON TOBACCO PLANTING.

The Tobacco prospects continue very favourable. It will be seen by the following list that up to August of this year concessions for 690,000 acres of land had been made chiefly for Tobacco cultivation.

THE FOLLOWING IS THE LIST OF ESTATES IN BRITISH NORTH BORNEO:—

ALCOCK PROVINCE.

No.	Owner.	Acres.	District.	Product.	Names of Managers and Assistants and Owners.
1	Rotterdam Borneo Company	3,000	Banguey	Tobacco	
2	German Borneo Company	11,969	,,	,,	F. Martens. J. Carnarvon.
3	,, ,,	11,170	Benkoka River	,,	
4	Kudat Coffee Planting Company	300	Kudat	Liberian Coffee	P. Christian.
5	Marudu Bay Tobacco Company	4,000	Marudu Bay	Tobacco	J. P. Netscher. S. Kooleman.
6	Rotterdam Borneo Company	4,000	,, ,,	,,	Lassen. Biesta.
7	Borneo Tobacco Company	4,844	,, ,,	,,	P. Persyn. Brunmer.
8	The London Borneo Tobacco Company	26,000	,, ,,	,,	Count Geloes.
9	Rotterdam Borneo Company	10,000	Benkoka River	,,	Bosch-Sulpke.
10	J. Lennards	2,000	,, ,,	Liberian Coffee	C. Keasberry.
	Total	77,283			

DEWHURST PROVINCE.

1	Borneo Tobacco Company, Sugut	50,000	Sugut River	Tobacco	C. M. Brack. St. Legge. D. W. Kappelle.
2	B. T. M. Samarang	3,000	,, ,,	,,	P. Goudrian. G. de Gruiyter.
3	,, ,,	4,000	,, ,,	,,	W. Forbes Mosse.
4	A. van Citters	4,000	,, ,,	,,	
5	,, ,,	4,000	,, ,,	Application	
6	H. Buning	4,000	,, ,,	Tobacco	
7	Heilgers	10,000	,, ,,	,,	Not selected.
	Total	79,000			

MARTIN PROVINCE.

No.	Owner.	Acres.	District.	Product.	Names of Managers and Assistants and Agents.
1	Amsterdam Borneo Tobacco Company .	30,000	Labuk River . .	Tobacco . .	C. J. G. van der Hoeven. Halloman.
2	Labuk Planting Company . . .	10,000	,, ,, . .	,, . .	Muller. Jurgen*.—*China Borneo Company.*
3 to 6	Jan C. Teves and W. G. Brodie . .	20,000	,, ,, . .	,, . .	E. C. Van Marle. Langenberg. C. Napier.
7	Baron Taets von Amerongen . . .	10,000	Lokan River . .	,, . .	
8	Cornets de Groot	5,000	,, ,, . .	,, . .	
9	,, ,, ...	5,000	,, ,, . .	,, . .	
10 to 11	London and Amsterdam Borneo Tobacco Company	20,000	Labuk River . .	,, . .	A. Koch.
12	Borneo Labuk Tobacco Company . .	15,000	Tungud River .	,, . .	Rookmaaker.
13	Arendsburg Tobacco Company . .	8,000	Lamag-Segama River	,, . .	
	Total . . .	123,000			

MYBURGH PROVINCE.

1	Various	29,000	S'Kan Bay . .	Various . .	H. Kalfsterman.—James Fockers.
2	North Borneo Tobacco Company . .	4,000	Segaliud River .	Tobacco . .	W. Windrath.—*China Borneo Company.*
	Suanlamba Borneo Tobacco Company .	14,451	Suanlamba River .	,, . .	A. Frockens. Margadant. Frazer and James Young.—*B. B. T. & P. Company.*
3	British Borneo T. & P. Company . .	69,671	S'Kan Bay . .	Timber . .	H. St. J. Hughes. C. W. Baker. C. Venis. Dr. Parsons.
	Segaliud Borneo Tobacco Company . .	15,878	Segaliud River .	Tobacco . .	Johnstone. Milne.—*B. B. T. & P. Company.*
5	H. van Son	5,000	Sandakan Bay .	,, . .	
6					
7	Various	15,000	,, . .	Timber Leases .	
8	E. G. R. Mossou	4,000	Kinabatangan .	Sugar . .	
9, 12	Jan C. Teves and W. S. Brodie . .	20,000	,, . .	Tobacco .	
13	A. F. B. van Delden	5,000	,, . .	,, . .	
	Carried forward	182,000			

MYBURGH PROVINCE—*continued.*

No.	Owner.	Acres.	District.	Product.	Names of Managers and Assistants and Agents.
	Brought forward . .	182,000			
14	London and Amsterdam-Borneo Tobacco Company	5,000	Kinabatangan .	Tobacco . .	H. Y. Stoof.
15	London and Amsterdam-Borneo Tobacco Company	5,000	,, . .	,, . .	
16	Junius van Hemert	5,000	,, . .	,, . .	
17	,, ,, ...	5,000	,, . .	,, . .	
18	,, ,, ...	5,000	,, . .	,, . .	
19	Cornets de Groot	5,000	,, . .	,, . .	
20	H. D. Snabilie	5,000	,, . .	,, . .	
21	Darvel Bay Company	16,000	Segama River .	,, . .	
22	H. E. Dorrepaal	5,000	Kinabatangan .	,, . .	
23	Sunei Koyah Planting Company . .	10,000	Sungie Kopah .	Various . .	J. S. Kennedy. Schuck. H. Dale. Dr. Rigby. *China Borneo Company.*
24	East Borneo Planting Company . .	5,000	Kinabatangan .	Tobacco . .	J. S. Kennedy. Van Rinsum. D. M. von Alkemade. Heerman. J. H. Hunter. F. White. Doral. *China Borneo Company.*
25	,, ,, . .	5,000	,, . .	Pepper . .	A. H. Mitchelson.
26	G. Klomp	10,000	Temegang . .		
27	London and Amsterdam-Borneo Tobacco Company	10,000	Kinabatangan .	Tobacco . .	H. Y. Stoof.
28					
29	China Borneo Company . . .	20,000	,, . .	,, . .	
30/32	Sandakan Tobacco Company . . .	20,000	,, . .	,, . .	
33	J. Muller	10,000	Segama . .	,, . .	
34	T. Menthley and others . . .	3,768	Sapagaya . .	,, . .	
35	Arendsburg Tobacco Company . . .	7,000	Kinabatangan .	,, . .	
37	S. I. Danby	10,000	,, . .	,, . .	*China Borneo Company.*
38	,, ...				
39	Canter Visscher	5,000	,, . .	,, . .	
40/41	S. I. Danby	10,000	,, . .	,, . .	*China Borneo Company.*
	Total . . .	363,768			

MAYNE PROVINCE.

No.	Owner.	Acres.	District.	Product.	Names of Managers and Assistants and Agents.
1	Darvel Bay Tobacco Plantation	3,000	Darvel Bay	Tobacco	J. F. Voorwyk. A. P. A. Kissing. J. Thies. Schot.
	,, ,,	22,000	Segama River		
2	Darvel Bay Company	2,000	Darvel Bay	,,	G. F. Stephens. J. Muller. A. Walker. R. Keasberry. Tate and Innes.
3	,, ,,	2,000	,, ,,	,,	
4	J. Spanjaard	2,000			
5	W. A. Voss	6,000	Segama	,,	
6	P. H. Tromp	5,000	,,	,,	
7	Darvel Bay Trading Company	5,000	Darvel Bay	Timber	A. H. Rothbart.
	Total	47,000			
	Grand Total	690,051			—

HENRY WALKER,

COMMISSIONER OF LANDS.

LAND OFFICE,

Sandakan,

23rd August, 1889.

The tobacco grown in the territory in 1888 has recently been sold with the following results:—

Where sold.	Bales.	Estate.	District.	Owners.	Average price p. lb.
1—Bremen . .	200	Benkoka . .	Marudu Bay	German Borneo Co.	2/3
2—Amsterdam .	371	Lahat Datu .	Darvel Bay .	Darvel Bay Plantation.	2/5

This shipment included 50 bales sea damaged. In a Report issued by the Company, dated 25th September last, it is stated:—"The purchasers, as is the custom in Amsterdam, offered the Tobacco in the market at once, and re-sold a very large proportion to retail dealers and manufacturers at most remunerative prices, the best Tobacco realising no less than g.3·30 per half kilo, or equal to about 5*s.* 6*d.* per pound."

Where sold.	Bales.	Estate.	District.	Owners.	Average price p. lb.
3—Rotterdam .	611	Ranou . .	Marudu Bay	Borneo Tobacco Co.	1/10

This price was considered very satisfactory in view of the fact of there being a large proportion of broken leaf. Messrs. A. C. Fraser & Co., of Amsterdam, the agents to whom this shipment was consigned, writes:—"The Tobacco itself makes a very good impression, showing a superior article, and were it not for the above defect, of which the planters are aware, its value would be much higher."

Where sold.	Bales.	Estate.	District.	Owners.	Average price p. lb.
4—Rotterdam .	117	Bengkoka . .	Marudu Bay	Rotterdam Borneo Co.	2/4

There was also a large proportion of broken leaf in this shipment, therefore the price realised was thought highly satisfactory.

Where sold.	Bales.	Estate.	District.	Owners.	Average price p. lb.
5—Amsterdam .	93	Seganan . .	Darvel Bay .	Tobacco Co. of B.N.B.	1/10

One of the largest brokers in Amsterdam spoke most highly of portions of the parcel as being of the very finest quality at present in demand. His official report is as follows:—"These 93 bales please me better than the Darvel and Ranou parcels. It seems to me that this lot proves that very fine Tobacco can be raised out there, as it is light, silky and of noble style and texture."

From the foregoing it will be seen that the quantity of tobacco sold during the year amounts to 1392 bales, or about 222,720 lbs., and that the average price realised was 2/1 per lb., or an equivalent of 125 guilder cents. Considering all the disadvantages attending the commencement of planting operations in a new country, this price compares most favourably with that obtained for Sumatra, which averages 127½ cents. for the same period.

Thus we have the experience of the tobacco markets of Bremen, Amsterdam and Rotterdam, and we have been assured by the well-known London brokers, Messrs. Grant, Chambers and Co., that British North Borneo tobacco is equal in every respect to that grown in Sumatra, and will without doubt continue to command a high price in the European markets.

The tobacco hitherto sold has been grown in Maruda Bay, in the north, and Darvel Bay in the south of the Company's territory, and there is therefore reason to believe that all the intervening country will prove equally favourable to its growth.

This year there are six Companies planting in Maruda Bay, one on the Sugut River, two on the Labuk River, one in Sandakan Bay, one on the Saliud River, two on the Kinabatangan River, and two in Darvel Bay, or fifteen Companies in all, so that the sales next year (1890) will include shipments from all parts of the eastern side of the territory.

All the reports which have reached us hitherto are most encouraging. It is true several estates have suffered severely from sickness amongst the coolies, which seems inseparable from opening new estates in tropical countries; but it is encouraging to find by the returns that plantations which have been established the longest have suffered the least. Later reports speak of a general improvement in the health of the coolies on almost every estate, and the crop prospects are good everywhere.

The crops now being cut are estimated to yield 300 tons, which, at 2*s.* per lb., will be worth £67,000; and, as other Companies are opening, the export in 1891 of the 1890 crop should reach nearly 1000 tons, estimated to be worth £224,000.

We have been favoured with the copy of a circular recently issued by the Amsterdam-Borneo Tobacco Company to their Shareholders, in which it is stated :—

> "When in July 1889, at the General Meeting of Shareholders, we handed in our report, we expressed a wish that the manager, Mr. C. J. G. Van der Hoeven, might succeed in obtaining a first crop of good tobacco, in order that it might be proved that the soil conceded to this Company is suitable for the growing of tobacco.
>
> "That expectation has been fully realised, telegraphic despatches and letters having been received from the manager to the effect that tobacco of a superior quality has been raised on the Company's estates.

"At the end of July the cutting off the tobacco was started with and has been regularly continued, in consequence of which the manager estimates the crop at 6 piculs per field each, which for 79 fields now under cultivation would yield a gross supply of about 60,000 Amst. pounds (½ kilogrammes).

"But it is not only from correspondence and reports that the Directors feel convinced that the soil of the estate Marienburg on the river Labuk is adapted for the cultivation of tobacco, but the samples of tobacco recently received here have fully borne out this fact.

"According to the opinion of experts to whom these samples were submitted, there is no doubt but the product they represent may be considered to be of first-rate quality.

"The fact of the leaves being found of a good length, with fine stalks and elastic, and the tobacco as regards its colour, flavour and burning leaving nothing to be desired, confirms the conviction that this first crop, which we hope will arrive here towards the middle of the year 1890, will prove a success to this young Company."

The Directors, taking all this satisfactory progress into consideration, and in view also of the large tracts of land ceded but not yet surveyed or even selected, decided to raise the price of tobacco land from $3 to $6 per acre, and a notification to that effect was published on the 23rd of October, 1889.

Whilst tobacco land has been raised in price, the Directors, acting on Governor Creagh's advice, have offered to make free grants of from 1000 to 5000 acres in each province to any individual or Company who will guarantee the introduction and continuous cultivation of any new product, such as pepper, gambia, Liberian coffee, cocoa, or sugar.

All these products have been planted experimentally, and it has been proved that the soil and climate are admirably adapted to their culture. A Liberian coffee estate in Marudu Bay is doing remarkably well, and planting on a large scale by a Company is under consideration.

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